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What are the reasons behind why organisations fail to implement SAP's Enterprise Resource Planning system successfully?

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This dissertation is submitted as part requirement for a Management joint studies program at University College London. It is substantially the result of my own work except where explicitly indicated in the text.

The dissertation will be distributed to the internal and external examiners, but thereafter may not be copied or distributed except with permission from the author.

Written By

Humera Yakub

Table of Contents

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Abstract

The aim of this research paper is to examine why firms fail to implement SAP's Enterprise Resource Planning (ERP) system successfully. In order to answer the main research question, the following aspects had to be explored: the effectiveness of ERP training that is provided within an organisations, whether SAP provide a satisfactory after-sales service, and the importance of incorporating a feedback and monitoring process while ERP is being implemented. The objective is to provide organisations that are considering implementing ERP, with knowledge about critical success factors and the reasons some firms experienced failed implementations.

In order to carry out this research study, semi-structured interviews and questionnaires were constructed within two firms, GlaxoSmithKline (GSK) and T-Mobile, who have decided to implement the ERP system but have been recently experiencing issues, which has hindered the successful implementation of the system.

The research study carried out for this paper established a few common factors that continuously hindered the successful implementation of an ERP system. These included a lack of project planning and project management skills, a lack of commitment and support from seniors, leading to de-motivation and high staff turnovers, as well as an absence of effective change management tools, and adequate training. These factors all accumulate and result in costs exceeding the initial budget significantly. However, incorporating simple solutions to overcome the identified issues, will lead to a successful and effective ERP implementation.

Chapter 1:

Introduction

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1.1 Introduction

The below report is conducted to explore the reasons behind the failure of SAP's Enterprise Resource Planning (ERP) system. The system aims to streamline processes and integrates standardisation between all divisions that may exist within a firm. This results in the smooth running of daily processes, ensuing the overall business to run more successfully, as the level of efficiency is increased.

This report focuses specifically on the reasons why obtaining the above positive results is not possible for some firms when they decide to introduce an ERP system and according to some studies, approximately '70% of all ERP implementations fail' (Gross, 2011). The research study carried out in this dissertation aims to discover why this failure occurs and the ways in which it can be avoided in the future. It is assumed that organisations will find my area of study interesting because, as Gross (2011) explains, 'all around the globe, large organisations as well as small, are turning to various forms of advanced technology to assist them in functioning more effectively'. The findings will be specifically relevant to and hold significant value to managers in organisations who are considering the implementation of ERP.

1.2. What is SAP?

Hasso Plattner founded SAP AG in 1972, and since its establishment, the German multinational corporation is now undoubtedly one of the biggest software companies in the world (Visnoi, 2006). SAP stands for 'Systems, Applications and Products in data processing' and the business has a distinctive precept, as it aims to support people and organizations in working together more effectively while 'helping the world run better' (Gable and Timbrell, 2001).

This report focuses on the implementation of SAP's ERP system, as the majority of organizations initiate with an application that helps them incorporate all their divisions in one central area. This helps them control various different processes and smooth the running of the business as a whole. ERP (formerly known as SAP R/3) is a term used within the industry, referring to the employment of specific activities that help manage the most important aspects of a business (SAP, 2010).

1.3. Background of organizations involved

GlaxoSmithKline (GSK) is one of the world's leading pharmaceutical companies in the world and currently focuses on three main business areas: 1.Pharmaceuticals, 2.Vaccines, and 3.Consumer Healthcare (GSK, 2013). This firm will be used as part of the research study within this dissertation as it is one of the few pharmaceutical companies that aim to make appropriate use of IT solutions. Many areas within GSK are still using legacy systems (Lufthansa Systems, 2010), while others that have started integrating ERP, are experiencing many factors that act as a hindrance in introducing the system successfully.

Another organisation forming the research for this dissertation is T-Mobile. The company is the 'world's tenth-largest mobile phone service provider and consists of approximately 150 million subscribers' (Farmer, 2013). In 2003, T-Mobile decided to implement 'SAP applications to more than 6000 employees across the UK' (Simons, 2003), and then planned to integrate this ERP system across all their other locations if it proved to be a success.

1.4. Research Aims & Questions

The aim of this paper is to help organizations that are considering implementing ERP to be made aware of the risks associated with integrating such a sophisticated system, and the challenges they can expect to experience. This research paper can also be useful to organizations that have already integrated ERP into their business processes, as it addresses issues arising after the implementation process.

The main research question is:

- Why do firms fail to implement SAP's ERP system successfully?

Specific research questions that will aid in answering the main question:

- What are the factors leading to ERP's failure?
- How effective is the provision of ERP training?
- Does SAP provide a satisfactory after-sales service?
- To what extent is it important to incorporate a feedback and monitoring process while implementing an ERP system?

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Chapter 2:

Literature Review

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2.1. Introduction

This chapter provides an overview of SAP's ERP system, and evaluates why it makes a significant impact within the organisations that have chosen to implement this technology. ERP systems help integrate the various aspects that may exist within a business, and it is generally used to improve efficiency, as it aims to collaborate all divisions and ease management. A thorough analysis is carried out to explore the key aspects that need to be addressed while integrating such a system, and the reasons why many organizations fail to integrate the ERP system successfully.

2.2. What is ERP?

ERP systems were introduced in the 1950s and 1960s, when computers were first introduced in organisations (Moller, 2005). SAP offers a diverse range of products to ensure it meets the requirements put forward by different customers. Among these, the ERP system is one of the leading products, which exists within 'SAP Business Suite' (SAP, 2010). Its popularity stems from being able to tightly integrate all the applications that are running inside the system, and the software also allows specific features to be customized in order to meet each organization's personal needs.

SAP ERP was previously known as R/3 as it originally referred to 'real-time data processing' and the '3' signified three-tier architecture. This type of architecture is compatible with various operating systems and platforms, enabling SAP to widen its customer base. ERP is an 'enterprise-wide information system' designed to synchronise all the activities, information, and resources a company needs to complete its business processes. These daily processes may include billing activities, stock ordering, and order fulfilment, amongst many others (Esteves and Pastor, 2001).

SAP states that their ERP solution will better execute business strategies by gaining real-time insight and enabling operational excellence for specific business processes (Koch, 2005). The company holds forty years of success in providing ERP, and defines itself by three main themes - dedication to innovation, early commitment to create solutions and collaboration with customers, and acknowledging that 'real-time' data processing helps bring people closer to business intelligence (SAP, 2010).

2.3. Importance of ERP

Ouye (2011) states 'large organisations as well as small are turning to various forms of advanced technology all around the globe, to assist them in functioning more effectively'. Acknowledging the importance of ERP will enable firms that are keen to optimise existing processes, to achieve their objective earlier.

According to SAP (2012, paragraph 2),

> 'the successful introduction of the Enterprise Resource Planning software allows businesses to respond promptly to customer demand, whilst maintaining fast and flexible processes'.

It aims to streamline business practices with consistent and reliable information, with real-time transparency and whilst avoiding duplication of data. Effective application of ERP solutions will outperform the competition as they involve up-to-date financial insights and results, with the ability to innovate and update, or activate specific business functions on demand (Koch, 2005).

In today's competitive market conditions, 'large firms cannot compete without ERP systems' as Crumley et al (2010) suggests, and such systems are used as enablers rather than differentiators for these organizations. This conclusion is driven from the facts available regarding the proportion of large firms using ERP systems. In the United States, 98 of the Fortune 100 firms use ERP systems to some extent, and over 80% of Fortune 1000 companies have integrated an ERP solution (Oracle, 2005). This shows that successful streamlining of all divisions within an organization can produce significant benefits and help firms remain competitive.

It is important to acknowledge that ERP systems can have different influencing roles within an organisation, which results in increased agility and increased control of processes (Johansson, 2009). Crumley et al (2010) state that SAP has recently started to concentrate and expand its products aimed at small and medium-sized enterprises (SMEs). These businesses are usually most deprived of having a system that can rationalize all their divisions, and speed up their daily activities. SMEs must recognize the benefits of an ERP system, as it provides a complete and affordable solution that helps simplify processes, resulting in better overall business performance (SAP, 2011). SAP also claims to 'fit the way you do business' (Baker,

2011), as services are distributed on-premise, on-device, on-demand, or via a hosted network, to ensure it meets each firms' individual needs.

SAP's solutions for small businesses and midsize companies are delivered through its global partner network (Morel, 2005). SAP PartnerEdge is a partner program which offers business resources and program benefits to help their customers be profitable and successful in a range of activities including: implementing, selling, developing, and delivering SAP solutions to a broad range of customers (Jha, L, 2008).

Overall, ERP projects are widely used as a platform for growth by companies who are aiming to reduce the time taken for activities such as external reporting, compliance, and system upgrades. It helps to deliver better information more quickly, which enables organizations to make enhanced decisions together, whilst significantly reducing the time taken to reach a conclusion. This leads to improved efficiency and simplicity drive, which helps gain lower general and administrative (G&A) costs, better resource allocation and working capital management. Introducing ERP allows for smoother integration of new businesses and also, supports evolving business models within companies (O'Leary, 2000).

2.4. Key aspects in the implementation of ERP

The implementation of ERP solutions brings many benefits to organizations that choose to integrate this software in order to manage their businesses more efficiently (O'Leary, 2000). Staff (2006) describes the ERP software as a fast and flexible solution that provides an organization with new functions and greater productivity. It also offers analytical insights into business processes, which increases the flexibility to design a system that meets specific customer requirements. ERP systems can be described as role-specific developments as they aim to increase employee productivity, by supporting them with a tool that is tailored to their specific work tasks.

Prior to the implementation of an ERP system, firms must decide whether they require pre-designed software or a customized package, which is tailored to their needs (Staff, 2006). The significance of a personalized package is that it obtains a deeper understanding of the organization and provides an industry-specific functionality. This is a vital requirement for firms trying to achieve competitive advantage, as revenue-generating businesses operate in a highly competitive market. It is important to concede that this method of implementation increases total expenditures significantly, due to initial costs and on-going maintenance of custom integrations. However, as Beaubouef (2011) explains, a customized software package helps minimize the 'potential for software functionality gaps', which usually occur when integrating off-the-shelf packages.

Although a tailored package seems like the best option for any organization, it is important to note the significant costs that are associated with such packages. Therefore, many firms and especially SMEs that have a constricted budget, choose to implement a pre-developed ERP system. These mass-produced standard packages are cost-effective, and are technically easier to implement, while providing faster return on investment. However, a major drawback is that it requires greater organizational change to align itself with the general ERP functionalities (Beaubouef, 2011).

Firms must realize the importance of project planning, since the implementation of an ERP system will most likely be one of the biggest projects a firm has experienced.

Incorporating appropriate planning measures will mean that clear goals, objectives and strategies are well thought about. A clear business plan will also ease the implementation process and aid in choosing the software package that best suits the business. The questions a firm must consider are: 'Will having a tailored software versus a standard ERP package be worth the cost?' and 'Will the additional investment have a significant impact on the firm's competitive advantage?'

After it has been decided which type of ERP software package is to be integrated within the organization, it is essential to consider the critical factors that lead to the successful implementation of an ERP system. Firstly, change management tools must be utilized to satisfy the overall business requirements. It is common for firms to expect the ERP system to fit their business operations, being a cross-functional system that must meet their requirements. Therefore, if the initial plan of a company is to fit the system around its business processes, then spending excessive amounts of time and money on paying external consultants and trying to motivate employees will be futile. Firms must realise that in an ERP implementation project, it is impossible for systems to be tailored to suit the exact needs of a firm, and shaping the business to fit the new ERP system is unavoidable (Nah et al., 2001). Nah et al. (2001) also suggest that companies should be willing to change their business operations to fit with the ERP software, and they should have an attentive plan in place to ensure this is done successfully.

Secondly, commitment and support from top management is required from the start of the project until the end. Seng Woo (2007) recommends that managers should set new goals and policies in the company to state what they expect from the project team. They must be able to positively lead and motivate the project team, as well as assist employees in the change process. The implementation process must be monitored at all times in line with the agreed goals and objectives defined, and seniors should clearly identify the project as top priority (Nah et al. 2001). Sufficient project management skills, and the ability to communicate on a vast scale is a necessity. Kumar et al. (2000) found that ERP implementation projects are the 'most difficult system development projects'; hence excellent communication creates widespread understanding and acceptance of ERP. Naturally, people are reluctant to change, especially the elderly employees, so effective communication reduces

perplexity as claimed by Seng Woo (2007), and allows all employees to be supporting and cooperative.

Another significant factor affecting the success of an ERP implementation is ensuring the right set of employees are chosen to carry out the project. These resources should not comprise of IT staff only, as ERP implementation is not 'merely a technological change' (Seng Woo, 2007). The team should have the right mix of external consultants and internal staff, as consultants will require the internal staff to explain the current business processes and culture. Internal staff must also aim to develop themselves in the process, and learn the necessary IT skills for the design and implementation of an ERP system. More specifically, the team must consist of functional consultants so that current business processes can be mapped to existing ERP modules, and hiring programmers with experience in multiple modules may also be cost-efficient, as they are able to make changes to existing project when new developments arise (Visnoi, 2006).

Ferrando (2001) found that when organizations adapt to new technology, they must prepare staff with adequate training, as this becomes the fine line between success and failure. Heavy investment in training, support and education should be emphasized, such as on-site support staff and use of a support centre, helpdesk, or online user manual. Rather than providing training on the full range of ERP functionalities, firms must focus only on modules the staffs would use, as this allows them to be more comfortable with modules relating to their daily activities. Nah et al. (2001) reported that training classes can help employees feel more comfortable in using the system while reducing mistakes, and stress that sufficient training of employees can achieve ERP system success. As ERP systems are not easy to use, preparing employees to use ERP is essential, even for highly skilled IT personnel (Seng Woo, 2007).

Lastly, senior managers of firms aiming to implement the ERP system successfully must acknowledge the importance of getting feedback and carrying out regular monitoring activities. As Nah et al. (2001) state, 'any project is considered incomplete without allowance for feedback and post evaluation'. The assessment should consider and check whether goals and objectives that were set up earlier are

being met, whilst the performance of employees should also be measured to aid the overall evaluation process (Finney and Corbett, 2007).

2.5. Challenges of implementing ERP

As the implementation of an ERP system becomes a necessity for a firm's growth, we also witness increasing challenges for both large firms and small as the amount of computing and networking rises, applying greater importance to information utilization within businesses. These changes undoubtedly require a technically trained workforce and a huge capital investment from firms that wish to implement the ERP system successfully. These resources are more easily acquired by large organisations that work on a less restricted budget, and opt for the best resources in order to receive the best results (Crumley et al, 2010).

On the other hand, small and middle-sized enterprises (SME) find it more difficult to gain the best expertise when integrating new software, especially one as big as an ERP system, and these challenges are explored in more detail below. Crumley et al (2010) note that ERP solution providers are now focusing sales growth on SMEs, allowing them to gain efficiency and an information advantage over their competition with the installation of ERP systems. Therefore, industries dominated by SMEs must now consider implementing ERP systems as their market landscapes become increasingly competitive, and they must also develop solutions to overcome the issue of holding limited resources. (Crumley et al, 2010).

A major problem causing failed implementations of ERP systems is the lack of effort put into project planning. This results in a 'misfit' between delivered functionality and needed functionality, which is a gap between the processes an ERP system supports and the processes used by an organization (Beaubouef, 2011). This 'misfit' occurs due to a poor process of defining exact requirements for the system and has many causes, such as increased costs of customizing and upgrading the ERP system, which leads to unwillingness among employees to adapt the system. This results in a failed attempt to implement ERP (Johansson, 2009).

SMEs must acknowledge that they have more challenges to overcome compared to a larger firm, as hidden costs exist when implementing such large systems. These extra costs mainly arise when firms choose to integrate pre-designed software as oppose to a tailored package. As SMEs are more likely to choose standard packages as a means of saving money, hidden costs may include training expenses, updating costs, and customization costs. Additionally, support for SMEs when implementing an ERP system are also proportionally less versus larger firms, who have the ability to hire the best professionals who can aid them in the process from start to end. SMEs are less likely to have a robust IT team in-house and are also less able to employ external consultants compared to a large firm, so they are limited to their own scarce resources and the limited help provided by the vendor (Crumley et al, 2010).

Another common issue regarding the implementation of ERP packages involve the management team failing to recognise the importance of introducing organizational change, in order to meet the requirements of an ERP system (Gupta, 2000). Company adopters unwisely demand ERP to meet their needs and spend excessive time trying to modify ERP components to meet the current business processes. This may result in firms customizing the modules and writing endless code, which costs a lot of money for the adopting organization both during the implementation and during upgrades, when new versions of the software are released in the future (Koch, 2005). Since most external consultants are charged on an hourly basis, many firms and especially failed projects, find themselves on an average of 189% over budget. This is due to time over-runs in the ERP integration process, resulting in the project experiencing a substantial inflation in costs (Gargeya and Brady, 2005).

SMEs in particular experience significantly higher costs than they initially planned, as they tend to avoid recommendations of vendors and insist on customizing standard ERP software to match their current processes. These smaller firms typically recognize their unique process as a competitive advantage that should not be sacrificed for the implementation of an ERP system. Therefore, some SMEs are forced to modify their processes to fit the system, while others choose to avoid this and try to force the system to adhere to their processes, hence leading to a failed implementation (Crumley et al, 2010).

Millman (2004) states that one of the biggest mistakes an organization can make is to customize the ERP package so that it fits their processes, instead of changing their company processes to fit the software. One of the main reasons behind organizations experiencing this mistake is due to the misfit between ERP functionality and business requirements, as mentioned above. Soh et al. (2000) describes this as a common problem when adopting software packages and describes this 'misfit' as a 'gap between functionality offered by the package and functionality required from the adopting organization'. Bill Swanton (2004), vice president at AMR research, confirms this by stating 'only 25% of the organizations are satisfied with the ERP they use at the moment', and he claims the reason for the dissatisfaction is that the software does not map well with the business goals (Sleeper, 2004).

An apparent problem faced by ERP implementers, briefly mentioned above, is the unexpected and immense cost overruns. The greatest disadvantage is that ERP is expensive to implement by its nature (Bradley and Lee, 2007, Gargeya and Brady, 2005), and implementation costs include software, hardware, external consultant fees and internal staff for installation, as well as the costs associated with training the staff to operate the system (Trimi et al, 2005). Generally, the ERP software is enormously sophisticated, so there is often a tendency to implement more features and functions for a particular installation than is actually needed. This drives up costs significantly and may reduce usage if the system proves to be too complex to use for employees, especially if they lack the necessary training that is needed to gain maximum benefit from the implementation (Singh, 2010).

The result of all of this flexibility is that virtually every SAP installation has its own specific configuration and set of functions. However, there are many costs associated with tailoring off-the-shelf software and firms must acknowledge the difficulties before deciding to modify the modules. An organization that makes thousands of customizations to its initial SAP application, may find itself spending millions to upgrade its SAP network later on. When SAP is upgraded, every customization must be identified in the 'ABAP code', which is used within all application modules. These changes must be re-applied to upgraded SAP software that may be released in the future, which constantly increases the overall costs (Visnoi, 2006).

One of the most popular challenges of implementing ERP occurs within training and education, as ERP is not easy to use even when presented in front of highly skilled IT professionals. Attaining ERP success is only possible after sufficient training has been provided for users, as this enables the software to deliver its maximum potential. SAP engineers (O'Leary, 2000) emphasize the need to invest in training, support and education that should be made available in the form of on-the-job training, on-site support, and utilising information made available through the original SAP Community Network (SCN). Failing to provide these training resources for employees becomes one of the main reasons a firm fails to implement the ERP system successfully (O'Leary, 2000).

Although the importance of training is emphasized above, it is common that training effort is downplayed or ignored, because it does not provide huge quantifiable benefits and is initially considered as an expense, which can be reduced or eliminated easily (Seng Woo, 2007). Worse, some companies invest a small amount of effort even though sufficient training should be given to employees, in order to outweigh the implementation costs (Gargeya and Brady, 2005). This mistake has certainly been the root cause of many failed implementation attempts and Gupta (2000) also suggests adapting custom training to avoid this mistake. In-house training consultants can be hired to conduct the training, as well as the use of intranet-based or CD-ROM training applications.

Providing proper training methods benefits the organization, as it offers a smoother transition for employees, and aids them in accepting the new system. Martin and Cheung (2000) argued that training is a challenging aspect, as it must be delivered effectively, and in a timely manner. Training staff for a longer period than needed might add cost overruns and create fatigue among employees, while training users too early might lead to forgetfulness. Despite all the hassles, educating staff during a technology implementation is vital, since it has great potential to influence user attitudes, performance and acceptance of the technology, as well as developing a feeling of satisfaction among users, which boosts their confidence level (Amoako-Gyampah, 2004).

In order for an ERP system to be implemented successfully, firms must possess the right set of employees that share the same vision as the organization they work in. A large system such as ERP may bring many shortfalls in the implementation process,

and employees must be determined and willing to overcome these. According to Kumar and Van Hillegersberg (2000), the fact that ERP is a packaged solution creates a disconnection between the specified business requirements and the ERP solution itself. This issue is resolved by an ERP 'expert' who adjusts the system so that it better fits the businesses' requirements. However, a problem described by Kumar and Van Hillegersberg (2000), is that there is no guarantee that the expert has sufficient knowledge to understand the requirements from a business perspective. Alvarez (2002) describes a common 'communication problem' between business analyst and customer, therefore, it is the employees' responsibility to fully communicate the business requirements to the ERP expert, and also try to learn the processes behind the software (Johansson, 2009).

Gupta (2000) claims that the main hurdle an ERP implementation faced was high resistance from employees to incorporate change within the firm. Staffs oppose learning new technologies due to attachment to the old system, and firms eventually realise that cultural change does not occur 'magically' (Bradley and Lee, 2007). Some departments and users may also be hesitant to agree to the implementation, if they feel they are giving up too much control of their data by switching from a department application to an enterprise-wide solution (Singh, 2010). Therefore, it is important for employees to believe they have the support from top management, in order to acquire their complete involvement in the implementation process.

It seems that many firms fail to recognise the help offered through the internet by SAP, to aid organizations get the best possible results after integrating their software. SAP Community Network (SCN) is a community of SAP customers, partners, employees, and influencers who currently occupy the roles of developers, consultants, and business analysts. This network is used to gain and share knowledge regarding a variety of information such as ABAP code, Java, .NET, and other technologies. The information is made available through expert blogs and discussion forums, which offer 'exclusive downloads, code samples, training materials, and a technical library' (Jha, 2008). The SCN has more than 2 million members, all over the world and is largely viewed as 'a best practice in social networking for business' (Yolton, 2010).

There are many reasons why firms do not overcome the challenges outlined above. These are usually because of poor governing on the project managers' behalf, and a failure to grasp the real concerns when implementing a new system or software to current working processes (O'Leary, 2000). A considerable number of firms do not take advantage of the information made available through the SCN, as these facilities help implement newly bought software and solutions successfully. Many successful firms have proved to use this network as a source of network building in the event of one-to-one training or information being needed. The individuals providing support through the SCN are experienced individuals who have a significant amount of knowledge on the specific products that will be integrated in a firm. Gaining advice from such senior authorities enables a full understanding on behalf of the consumer and increases the chances of the software application ensuing an effective integration (O'Leary, 2000).

2.6. Summary

Trimi et al. (2005) claim that many projects fail as a result of imperfect design, as well as lack of knowledgeable and skilled staff. Another most apparent reason for ERPs failed implementation is a combination of technical problems and lack of understanding about business requirements (Johansson, 2009). Different companies are unique in the way they carry out their daily activities, and they have established different cultures, this results in them operating with different procedures and holding distinctive business requirements. Many firms do not wish to be assimilated into one corporate culture and prefer keeping their unique processes within each division of the business (Johansson, 2009). However, experience shows that it is not the customized ERP that makes implementations successful and increase an organization's profit, instead it is the re-engineering of existing business processes that make it happen (Millman, 2004).

ERP software implementation failures have made media headlines for over a decade, despite literature on 'best practices' and 'lessons learned' being publicly available. Also, although improved project management methods, mature software, and more experienced implementation project teams are obtainable, ERP software implementation failures continue to be unacceptably high (ERP.asia, 2009).

Chapter 3:

Methodology

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3.1. Aims/objectives and specific research questions

The aim of this paper is to help organizations that are considering implementing an ERP system to be aware of the risks associated with integrating such a sophisticated system, and the challenges they can expect to experience. This research paper can also be useful to organizations that have already integrated ERP into their business processes, as it addresses issues arising after the implementation process. It aims to suggest ways in which a firm can utilise the resources available to them, in order to gain maximum benefit from incorporating an ERP system.
The main research question is:

- Why do firms fail to implement SAP's ERP system successfully?

Specific research questions that will aid in answering the main question:

- What are the factors leading to ERP's failure?
- How effective is the provision of ERP training?
- Does SAP provide a satisfactory after-sales service?
- To what extent is it important to incorporate a feedback and monitoring process while implementing an ERP system?

3.2. Research Philosophy

3.2.1. Interpretivism and Positivism

Positivism adopts a deductive approach by using scientific methods as a means of generating knowledge. Therefore, the research has to be understood within the framework of the principles and assumptions of science. As Cohen et al (2000) also notes, these assumptions include determinism, empiricism, parsimony, and generality. Positivistic paradigm systematizes the knowledge generation process with the help of quantification (numerical data), which is essential to enhance precision and objectivity.

Interpretivism opposes positivistic approaches, and refers to the tactics used within social science, sharing 'ontological and epistemological assumptions', and emphasizing the meaningful 'nature of people's participation in social and cultural life' (Blaikie, 2004). The methods of natural science are seen as inappropriate for investigations that require an interpretivist approach, as anti-positivists believe that reality is multi-layered and complex (Cohen et al, 2000).

To carry out research for this paper, both positivist and interpretivist methods were combined via semi-structured interviews and questionnaires. This was so that the benefits of both approaches could be obtained, and the disadvantages of both approaches could be overcome. Positivistic methods contain vigour, replicability, and objectivity; however, the paradigm is criticized for its lack of regard for the subjective states of individuals, and quantitative methods alone are unsuitable for researching humans. This is because individuals are demoted to being nothing more than a system outcome, rather than a thinking and acting human being (Kelly and Charlton, 1995).

3.2.2. Research Credibility

To ensure the data results are a true representation of the wider audience, and are as factual as possible, the author has chosen to complete both interviews and questionnaires. This combination uses a mixture of techniques and allowed the data to be triangulated so that the questionnaires could compliment the data gathered via the interviews, which increases authenticity as the method defects are cancelled out. Saunders et al (2007) defines triangulation as the use of 'two or more data collection

methods within one study in order to help ensure that the data are telling you what you think they are telling you'. Incorporating a multi-method approach will reduce the likelihood of adopting a 'wrong approach' in the research design and can provide 'better opportunities to answer research questions and to evaluate the extent to which findings may be trusted and inferences made' (Saunders et al, 2007). Therefore, Vanderstoep and Johnston (2009) suggest that a mix of methodologies is used, maximizing the 'benefits of both approaches and providing the richest and most complete understanding of the phenomenon under study'.

Another aspect affecting the credibility of any research study is reflexivity, which refers to how an individual's beliefs and interests influence his or her own research. This type of bias occurs more often within 'inductive' research, an approach that involves 'the development of theory as a result of analysing data' that has been already collected (Saunders et al, 2012). This is because the researcher may unconsciously misinterpret the data so that the pre-constructed hypothesis is proved correct. McLeod (2008, paragraph 8) states,

> 'as human beings studying people, researchers necessarily have attitudes and values, which they bring to their research. It is therefore more honest that a researchers' attitudes and values should be acknowledged, and form part of the context of research.'

Measures taken by the researcher to eliminate reflexivity include understanding the various situations that will occur in this study where bias will be more likely, i.e. while carrying out the semi-structured interviews. The researcher also ensured that the intended participants completed the questionnaires, and that leading questions were avoided while interviewing those taking part in this research study.

To ensure the data collection method is 'fit for purpose', pilot questionnaires were distributed to confirm they provide an ease of understanding to individuals taking part in the research. This increased dependability, as it is common for questionnaires to be phrased in a way that miscommunicates a question, which affects the credibility of the entire research data.

3.3. Method of data collection

3.3.1. Primary and secondary data

Primary data is 'collected specifically for the research project being undertaken', while secondary data is information used for a research project that were 'originally collected for some other purpose' (Saunders et al, 2012). The majority of research used in this paper was an amalgamation of various types of primary research. This consisted of semi-structured interviews, and semi-structured questionnaires that aided the researcher in creating case studies for organizations that have implemented SAP's ERP system.

Primary research was chosen for this paper as it provided significant advantages such as rich data and flexibility. Conducting primary research offers the ability to gain first hand information, which is specific to this research study, resulting in only relevant information being gained. The main advantage of primary data is that it is up-to-date, and the information can also be obtained via new means of technology. For example, telephone interviews, online opinion polls, etc. Another point to be noted is that other businesses do not have access to the material; hence, it cannot be tampered with, which increases its reliability.

3.3.2. Qualitative and Quantitative

Qualitative research gathers information that is not in numerical form, such as open-ended questionnaires, unstructured interviews, and unstructured observations. Qualitative data is typically descriptive data and is useful for studies at the individual level, to find out the ways in which people think or feel in depth (e.g. case studies). Therefore, it is harder to analyse than quantitative data, as analysis of qualitative data requires an accurate description of participant responses.

Quantitative research gathers data in numerical form, which can be used to construct graphs and tables of raw data. Methods of gathering quantitative data (i.e. closed questions), may limit the possible ways in which a research participant can react to, and express appropriate social behaviour. Findings are therefore likely to be context-bound and a simple reflection of the assumptions which the researcher brings to the investigation. McLeod (2008) argues that focusing on isolated pieces of behaviour, which is most often the case when collecting quantitative data, is rather superficial

and ignores the social context within which behaviour takes place.
Research for this paper consisted of qualitative and quantitative data, in order to gain the benefits of both, as well as ease the process of analysing data without undermining its accuracy. A quantitative approach is useful as it helps the researcher to prevent bias in gathering and presenting research data, while qualitative data simulates people's individual experiences.

3.3.3. Interviews and questionnaires

There are three main types of interviews and questionnaires: 1.Structured, 2.Semi-structured, and 3.Unstructured. The research carried out for this project employed the benefits of semi-structured interviews and questionnaires. Such interviews allow respondents to answer questions in as much detail as they want, as well as enabling the interviewer to be flexible and probe further questions if sufficient information is not obtained for a specific question. Such interviews create an informal atmosphere, encouraging the respondent to be more open and honest, resulting in more valid information about respondents' attitudes, values and opinions being obtained.

It is difficult to directly compare the results of in-depth interviews because each interview is unique, therefore, the questionnaires were used to correlate the information gathered in the interviews. Questionnaires are an inexpensive way to cover a large geographical area and it is possible to gain large numbers of respondents, which creates a representative sample. Compared to interviews, questionnaires provide the respondent with more time to consider questions, especially if these are not carried out face-to-face. Another significant advantage is that questionnaires are replicable, and if well constructed and properly piloted, they become a very reliable source of data collection.

3.4. Data Analysis

While analysing quantitative data, it is helpful to split the information into its two main types: categorical, which is data that has been grouped, and numerical data, which is measured in numbers. Questionnaires are the only source of research that consists of quantitative data, and the nature of the questions will produce some data that is in numerical form, while others will be categorized. Qualitative data can exist in the form of text and non-text, such as audio, video, and images. In this research study, the audio recordings of the interviews were transcribed and word-processed, so that they could be analysed as text data.

The quantitative data is presented as tables and graphs via Microsoft Excel, as this is useful in analysing recurring themes and emerging trends, in a way that will help to answer the main research question. It must be noted that 'categorical and numerical data often requires the use of different tables and graphs' to analyse quantitative data (Saunders et al, 2012). According to Saunders et al (2012), 'computer-aided qualitative data analysis software (CAQDAS)' may be used to carry out a thematic analysis, which helps to distinguish developing themes and also, aids in coding with colours so that similar trends can be categorised to make generalizations.

3.5. Research Design

3.5.1. Research Method

There are many types of interviews and questionnaires that can be conducted, and the context and constraints of the study must be considered when deciding which type must be implemented. For example, an interview can take place on the telephone or in person and a questionnaire can be in the form of a web-based or a postal questionnaire. Although face-to-face interviews are preferred so that a rapport can be built, telephone interviews may need to be considered as they save time and costs for the researcher, and also if the chosen participants have busy schedules. Similarly, postal questionnaires are more expensive and time consuming than web-based questionnaires. However, it is important to note that the chosen participants may not be familiar with using new technology to complete web-based questionnaires, which may hinder the research process.

Carrying out semi-structured questionnaires helped the researcher gain a thorough understanding with quantified results, and also enabled the visualisation of information with the use of graphs and charts. The semi-structured interviews allowed qualitative data to be collected, which aided in establishing links among empirical findings, to see patterns emerge from the data collected (Bryman, 2004).

3.5.2. Research Strategy

Information from the interviews and questionnaires were used to establish a comparative analysis via the use of case studies. These were based on at least two organizations so that the findings could be generalized, and research participants were specific to these firms. Although some criticize the case study strategy because they feel that it provides no basis for placing faith in the findings (Saunders et al, 2012), these enabled the author to gain a profound understanding of the views of many stakeholders within these two firms. Saunders et al (2012) describe case studies as an effective way to obtain a ‘detailed understanding of the context of the research and the activity taking place within that context’. In this research project, a case study analysis helped identify the process each company experienced as they implemented an ERP system, and focused on failed implementations so that the main concepts that lead to failure could be identified.

3.5.3. Participants

All individuals taking part in the interviews and questionnaires were current employees of the two organizations under study. This was essential to gather reliable information, as ex-employees were likely to have a biased opinion. Therefore, 2 interviews were carried out for each firm, and 15 questionnaires were completed in each firm. This gave a minimum of 4 interviews and 30 questionnaires for analysis. The study did not limit the research sample according to an individual's position, gender, age, or the department they work in.

However, the participants were ranging equally in terms of their experience of using ERP, which were established beforehand due to the specific sampling methods being chosen. The study used non-probability sampling, as the total population of ERP-users is unknown. Purposive sampling was utilized as the 'researcher's judgment is used to select the sample members based on a range of possible reasons' (Saunders et al, 2012), such as ERP expertise, knowledge of the organization, and interest in the research paper which aided in constructing the case study.

Interviewees were chosen specifically so that they were able to provide more information on specific issues that could be used to build a case study. These were senior employees who had been working for the firm throughout the implementation process, and held a vast amount of experience in ERP. The snowball sampling method was also combined, to gain participants for the questionnaires specifically, so that the analysis of these was more credible. This consisted of current participants recommending more participants that were willing to take part in the research, and this process continued to help build the number of participants needed.

The semi-structured interviews were aimed to be more conversational than structured, as this gave the researcher the ability to probe further questions if needed, and the interviewer had guidelines of the questions that must be answered by the end of the interview. An audio recorder was used, which was later transcribed into text when the analysis proceeded, and the interviewer also took brief notes while carrying out the interview.

The semi-structured questionnaires were distributed using the 'delivery and collection' method, as this provided the data faster, as opposed to participants completing the questionnaire at different times and making several trip in order to

collect these. It is important to note that both interviews and questionnaires were of a similar structure. A conventional ‘funnel approach’ were used as guidance to structure both the questionnaires and interviews. This denotes the idea that questions start off in a sequential order, and gradually develop into a narrow standpoint.

A pilot-test for the questionnaires and interview techniques were carried out with a small number of people who are similar to those participating in the research. This is to check that the questions are likely to be understood, and are not leading, so that valid data is provided. This also gave an indication as to how long the interviews will last for, and give an opportunity to correct any mistakes that are identified.

3.6. Research Limitations

3.6.1. Limitations and drawbacks

Although all possible measures were taken to ensure the credibility of the research study is unaffected, some issues still remained intact and could not be overcome. One of these issues refer to the fact that the research paper was being carried out under a small timeframe and therefore, the desired amount of interviews and questionnaires could not be carried out as this will be too time-consuming, although it would provide more valid results. Similarly, the likelihood of having a sufficient number of participants is unlikely, and the number of current participants may be too low to be representative of the population. Also, the presence of a 'gatekeeper' may need to be overcome, especially as one of the organizations in the research is undergoing 'SAP Go Live', which means launching and introducing ERP in their international locations. Saunders et al (2012) defines a gatekeeper as 'the person who controls research access'.

Additionally, another possible limitation stems from the sample of employees in the research study, as not all of them were using the exact same ERP tools. This is due to the existence of different variations to ERP within the different departments, e.g. Human Resources, Finance, Operations, etc. Also, most respondents will be simple users rather than have ERP expert knowledge, as many of the pre-determined participants are recent graduates entering graduate schemes as an SAP consultant. Similarly, the snowball sampling method expected to generate colleagues with a similar role or experience to the initial contact, producing biased responses. Another obstacle emanates, as the researcher may not hold expert knowledge of ERP, resulting in the misunderstanding of some phenomena and interpreting information provided in a different way.

Inaccurate responses and biased opinions could indeed lead to inconsistencies in data collection. Saunder et al (2012) state 'bias is perhaps the most dynamic variable that is predicted to source difficulty in analysing the qualitative information' gained from the interview and surveying process. To reduce bias and improve validity, this research paper incorporated triangulation to strengthen the findings of the research. However, this method has also been criticized by Mason (1996), who claims that 'using a mixed method approach could result in solving alternative research

questions and problems', rather than different aspects of the same phenomenon. However, regardless of these critics, triangulation is still viewed as a strategy for increasing in-depth analysis and completeness.

3.6.2. Ethical concerns

It is significant to address the possible ethical issues involved in carrying out the study for this research paper, in order to safeguard the privacy and safety of all research participants. Among these, consent and confidentiality in the research process are also to be considered for moral reasons, and to gain permission from the selected participants to be interviewed.

Saunders et al (2012) stress the importance of making a professional written request as it allows the participants to be aware of precisely what will be required from them, and it also provides an opportunity for the researcher to enhance their 'own credibility by presenting a professional image through a carefully considered request'. Additionally, having contract agreements in place indicates to participants that the researcher is conscious of his/her ethical responsibilities while conducting the whole research process.

The researcher relayed all the important details of the study to the partakers, including its aim and purpose, so that the participants feel at ease while disclosing information that may be seen as 'negative' to their firm. This is especially true as this research study focuses on the negative aspects of an ERP implementation; hence, anonymity was guaranteed to all respondents taking part in the study. Data protection measures were also put in place to provide security to participants, as the researcher personally collected data by hand. Additionally, all the information gathered was protected using encryption software, which prevented third parties from accessing any data.

Participants were made aware that they are free to withdraw themselves from taking part in the study if they disapprove at any point given. This confirmed that participants were not forced to participate in the research and the confidentiality of each participant will be safeguarded, by not disclosing their names or personal information at any point in the research (Bryman, 2008).

Chapter 4:

Findings & Discussions

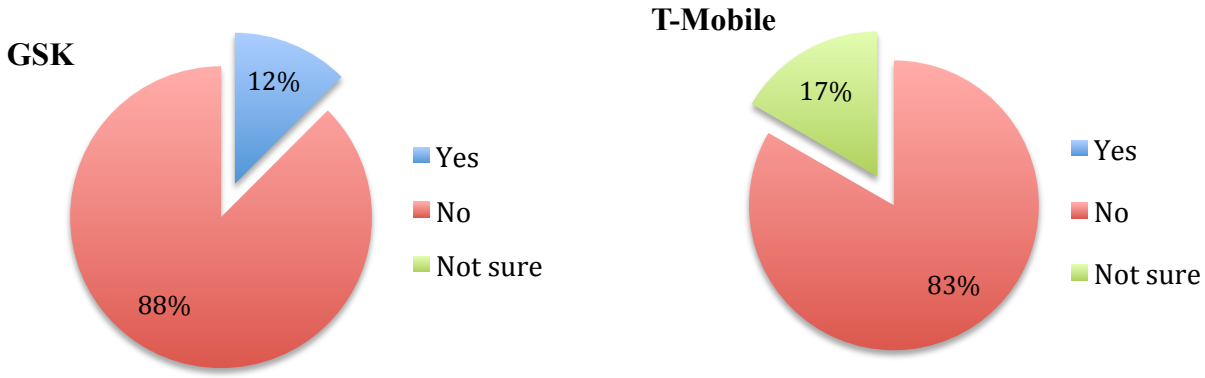
Written By

Humera Yakub

4.1. Introduction

This chapter explores the data gathered in the research study and the implications this has in regards to the main research questions. After reviewing all the findings from the data against the literature from previous studies, a conclusion will be drawn to acknowledge the reasons behind why organisations fail to implement SAP's ERP system successfully. The main findings for this research are as follows:

Figure 1: Ease of implementation



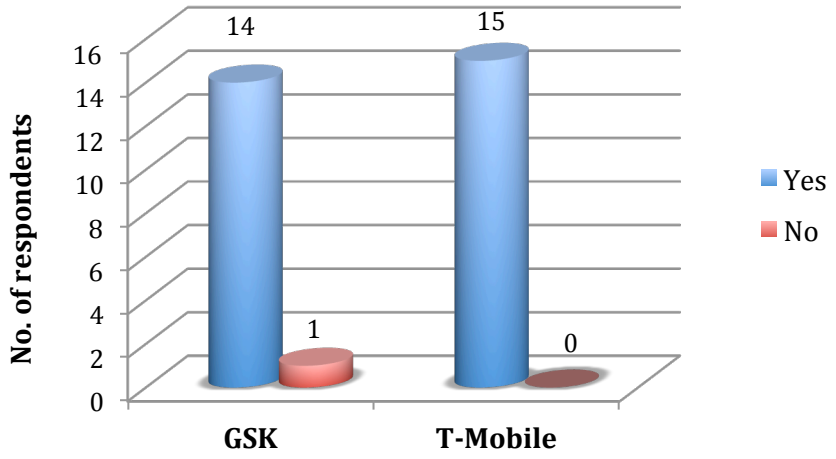
Respondents were asked whether they had joined the firm before the ERP system was introduced, and from the employees that had answered 'Yes', they were further probed if appropriate measures were taken to ease the implementation process. 88% of respondents at GSK and 83% of those at T-Mobile implied that suitable plans were not put in place to ensure the successful implementation of ERP. The data gathered from the interviews matched these results, as Interviewee 1 (GSK) stated, 'correct resources were not present, and the correct people with the appropriate expertise were not hired…hence a lot of money was wasted'. Exceeding the budget at the start of the project, due to poor project management, has led to redundancies as a means of cutting costs at GSK. The has led to a 'loss of knowledge' (Interviewee 1, GSK) and firm is experiencing high staff turnovers as a result, because employees are forced to work long hours, which equates to stress and de-motivation.

T-Mobile experienced a similar scenario, however, exceeding the amount of required resources was not the issue, and instead the firm had initially been under-resourced. This led to increased costs as short-term solutions had to be employed to hire expertise that was not present 'in-house' at the time of urgency. The literature reviewed from previous studies compliments the data gathered in this research, as

Seng Woo (2007) emphasizes the importance of commitment and support from top management stating 'managers must be able to positively lead and motivate the project team'. It is clear from the questionnaires and interviews carried out, that GSK failed to do this, as an interviewee (GSK) claimed that managers 'are not experienced or knowledgeable enough to make informed decisions that may involve billions'.

Beaubouef (2011) emphasizes that a major problem causing failed implementations is the 'lack of effort put into project planning…and this results in a 'misfit' between delivered functionality and needed functionality'. This applies to both firms as they failed to employ the right set of employees, with the correct amount of expertise. T-Mobile had a lack of expertise while GSK hired external consultants that were not needed. Interviewee 1 at GSK claimed 'a lot of money was wasted on hiring contractors that were not required…and these would cost GSK over £1000 per day'. Previous studies support this as most consultants are charged on an hourly basis and many firms 'find themselves on an average of 189% over budget' (Gargeya and Brady, 2005).

Figure 2: Major problems encountered



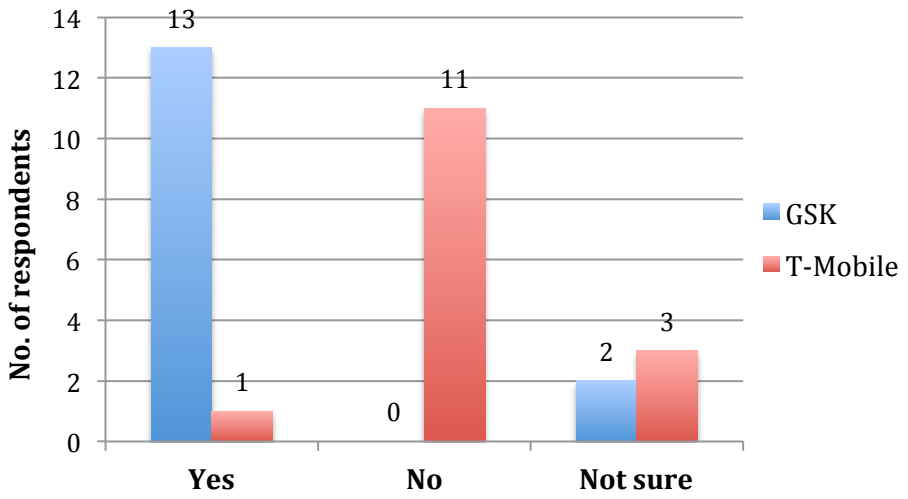
From the above graph, it can be depicted that the vast majority of projects experience major problems, which has an obvious effect on the overall success of the ERP integration. At T-Mobile, all participants alleged that they have faced major problems on the project they are currently working on, and the majority of the employees at GSK thought the same. The interviews held at both firms gave a chance to elaborate on the types of problems experienced, and the reasons behind

this. Interviewee 2 (GSK) explained there are too many tasks to handle simultaneously; hence, time management becomes difficult. The participant (GSK) also indicated that managers prioritise deadlines rather than quality of work and the established processes within the firm are unnecessarily long, 'unstructured and inconsistent'. These processes refer to how a change is made in the standard ERP template when an issue is reported from live markets.

The type of problem experienced within T-Mobile was different as their main area of concern was the testing procedure. Problems were still being detected even when testing had been thoroughly carried out, which led to 'fixes' to problems in the system being void. After the testing for each fix, the next step was to implement the fix as a solution in the system; however, this would interrupt other processes and create more issues. A GSK participant thought their testing is very time-consuming, hence, when an urgent change request comes in from a live market, the fix cannot be implemented to rectify the problem promptly, which leads to a loss of clients and bad publicity. These issues indicate the significance of training employees to have the right skills, so that testing can be carried out successfully. The importance of having a thorough testing procedure established within firms is not emphasized in the literature review carried out consisting of past studies. Previous studies considering the reasons behind failed implementation focus merely on the issues affecting the bigger picture. They fail to comment on the specific aspects that are needed in a firm, which have a great impact on the overall result of the implementation.

When a failed outcome is experienced frequently, employees lose motivation as their efforts are wasted due to another department not being able to carry out their own tasks correctly. As Amoako-Gyampah (2004) notes, training staff during a technology implementation is vital since it has great potential to influence 'user attitudes, performance, and acceptance of the technology'. It also develops a feeling of satisfaction and motivation among users, especially when positive results are gained after investing hard work, boosting their confidence level.

Figure 3: Approachable manager

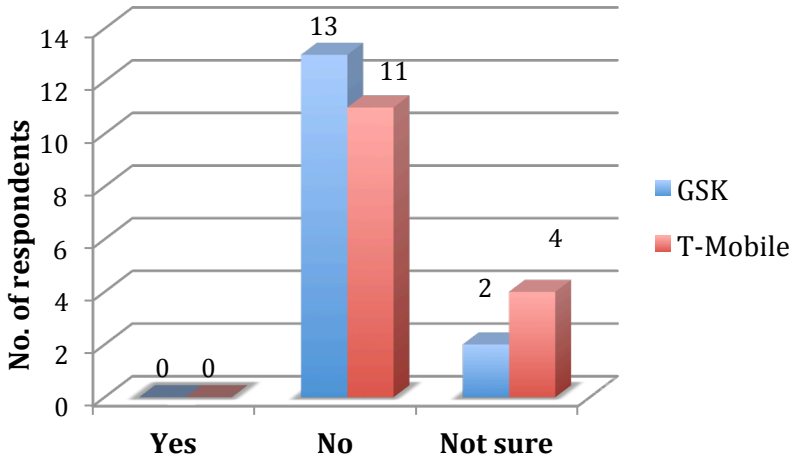


For this question, it seems employees within the two firms had a difference of opinion and we can presume that individuals working for GSK are confident that their personal managers are approachable. Those who did not respond with the same answer marked 'Not sure' on the questionnaire, and therefore, no employees believed their managers are unapproachable. On the other hand, the majority of employees working at T-Mobile thought their managers were not approachable. It can be inferred that T-Mobile employees do not feel comfortable approaching their manager, and this can lead to serious consequences for the overall IT system's success. Interviewee 3 (T-Mobile) asserted how the main issues within a project stem from 'our manager lacking leadership skills and not knowing the process in enough detail'. Managers at T-Mobile lack knowledge and fail to advise what should be done when a problem arises.

The participants interviewed at T-Mobile expressed how unlikely it is for employees to stay motivated and view the overall implementation as a collective goal, when their managers lack the skill to lead positively. The interviewee also explained how managers focus on monitoring the individual output of each employee, which makes staff feel like managers lack trust and that they are being watched continuously. This results in a lack of commitment from employees, which gives a rise to potential problems, as productivity is of low quality. Interviewee 4 at T-Mobile suggested 'employees need to be kept in the loop of what will happen next or what is going wrong', and by managers not sharing significant information with staff, it is likely to make them feel 'out of place' and insignificant. This becomes the cause of not being able to reveal the core problem, and the solutions in order to move forward.

GSK staff experienced similar occurrences, where managers prioritised deadlines at the expense of quality. Although managers at GSK are approachable, this merely means that their individual character is friendlier. This does not change the fact that 'managers are not experienced or knowledgeable enough', hence, GSK employees are incapable of taking advantage of the fact that they are easily approachable. Kumar et al. (2000) states 'communication creates widespread understanding and acceptance of ERP'. Managers must understand the importance of interconnecting with those they are managing, especially because people are naturally reluctant to change. Effective communication reduces perplexity and allows employees to be supportive and cooperative, while establishing a cohesive goal.

Figure 4: Efficiency within projects and processes



From the above figure, a strong opinion is voiced where employees in both organisations have a similar view. It consists of the belief that processes within each project carried out, are not as efficient as they could be. This can have a significant impact on the way tasks are handled, and the time is takes to complete each task. Efficiency enables a task or process to be carried out with the least amount of time needed, without compromising the quality of the outcome. A similar question was asked about ease of finding what employees needed, and the majority of employees in both firms agreed that they did not know where or who to go to in order to correctly address the issue and find a solution promptly. This results in project inefficiencies and gradually, leads to a failed ERP implementation.

Efficiency is achieved if the right set of people is employed, bearing the right expertise, knowledge, and experience. Seng Woo (2007) recommend that these

employees should not comprise of IT staff only, as ERP implementation is not 'merely a technological change'. The team should have the right mix of internal staff and external consultants, as internal employees will be required to explain the current business processes and culture, to those who have been hired externally. GSK failed to take note of this as capital was misused by hiring contractors that were not required, and 'the correct people with the appropriate expertise were not hired' (Interviewee 1, GSK).

Similarly, the participant interviewed at T-Mobile expressed that although training helps, 'experience within the firm is priceless'. Kumar and Van Hillegersberg (2000) describe 'there is no guarantee that the expert has sufficient knowledge to understand the requirements from a business perspective'. Both firms must understand that external consultants should not be appointed unnecessarily as they are evidently expensive, and it is time-consuming to teach each individual the company's business values.

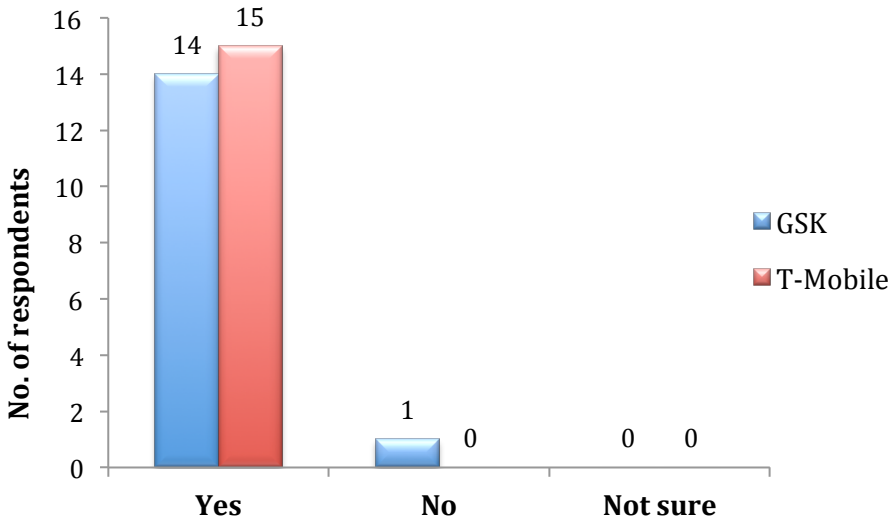
SAP's ERP system aims to improve efficiency overall, by delivering higher quality information faster, and enabling enhanced decisions by streamlining processes via better resource allocation (O'Leary, 2000). Therefore, it is evident that both firms are in need of this implementation to be a success, as both firms have not established the most efficient ways of working. One important element organisations fail to understand is quoted by Nah et al. (2001): 'shaping the business to fit the new ERP system is unavoidable'. Yet, GSK aimed to do this initially as Interviewee 2 (GSK) describes, they purchased a 'vanilla' ERP system from SAP (named iCERPS within GSK) and customized this according to their needs. The firm later realised that the ERP system's benefits could not be taken advantage of this way as too many costs were being encountered while trying to fit the system to the company's exact requirements. This is when their consultants advised them to start from scratch, and the whole project was dropped before being rolled out into global markets.

Many areas of GSK are 'still using legacy systems which act as a down factor' (Interviewee 2, GSK). If the firm had carried out sufficient research, they would have acknowledged the disadvantages of totally customizing an ERP system, leading them to implement the initial system successfully. Beaubouef (2011) supports this as he

articulates 'standard packages are cost-effective and technically easier to implement, while providing a faster return on investment'. However, a major drawback is that it requires greater organizational change to align itself with the general ERP functionalities.

Gupta (2000) also highlights 'the importance of introducing organizational change' and change management tools in order to meet the requirements of an ERP system. Company adopters unwisely demand the system to meet their needs and spend excessive time trying to modify ERP components to meet the current business processes. Every firm considering the implementation of such a major system must carry out prior research, which recommends the investment in standard software and guides them to a successful implementation. Millman (2004) states that 'one of the biggest mistakes an organization can make is to customize the ERP package so that it fits their processes', instead of changing their company processes to fit the software.

Figure 5: Benefits of further training



It is highly evident that almost everyone that took part in filling out the questionnaires within both firms acknowledged that more training on their ERP system would be beneficial to them. Employees at GSK and T-Mobile realise that more training and education in the field they specialise in, will assist them in carrying out their tasks more efficiently. This also supports the assumption made in Figure 4 above, as the majority of interviewees agreed that processes were not as efficient as possible, and the reason behind the lack of efficiency can be directed towards a lack of training. 14 out of 15 respondents at GSK believed that the

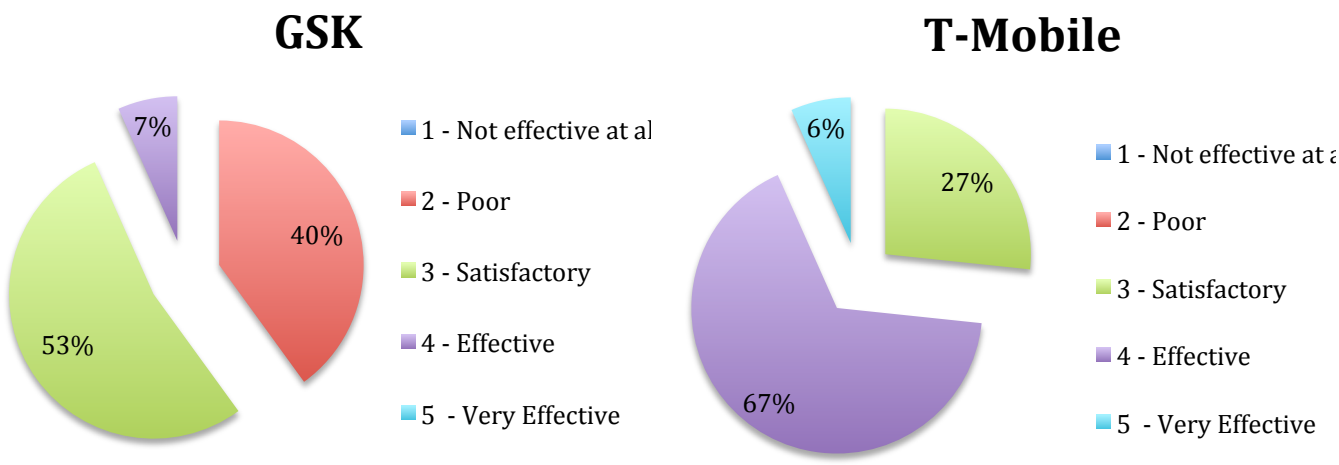
provision of training will be beneficial to them, and all of the 15 respondents at T-Mobile answered 'Yes'. Past studies also staged the importance of training as Ferrando (2001) found that when 'organisations adapt to new technology, they must prepare staff with adequate training', as this becomes the fine line between success and failure.

Interviewees at GSK stressed the importance of training and Interviewee 1 (GSK) claimed there are 'certain areas that are more complex to understand', hence, he has requested extra training on that particular aspect. Similarly, Interviewee 3 (T-Mobile) stated 'there is always room for improvement as long as we get to apply what we have been trained on'. Training will always increase an employee's current skill level and it allows the individual to act as an active member in suggesting solutions to issues, while in the process of implementing the ERP system. Seng Woo (2007) supports this view as he claims that 'one of the most popular challenges of implementing ERP occurs within training and education', as ERP is not easy to use, hence preparing employees to use ERP is essential, even for highly skilled IT personnel.

A participant in the research study working at GSK described that being trained to gain general background knowledge about SAP and its modules, does not help or benefit the employee in any way when tackling everyday ERP tasks and processes. Training in the right areas does help and eventually, it builds the right employee with the correct set of skills, but it is worth noting how time-consuming and costly it is. Worse, some companies invest a small amount of effort even though sufficient training should be given to employees, in order to outweigh the implementation costs (Gargeya and Brady, 2005). This mistake has certainly been the root cause of many failed implementation attempts. Also, 'knowledge alone is not worth as much as knowledge combined with experience is' (Interviewee 2, GSK). An individual that has been training and building experience within the firm which is now implementing the ERP system, becomes 'priceless' to the company, as he/she holds an extensive range of knowledge about the firm's history, culture, values, strengths, weaknesses.
Interviewee 1 (GSK) states 'the training that SAP provides will only give a high-level of knowledge on how SAP works and what functionality it offers', however,

this does not allow employees to gain a complete understanding unless experience of a complete SAP lifecycle is witnessed. It is essential to note that training employees to the standard required by the firm is too time-consuming and not cost-efficient, hence, a participant suggested that 'shadowing people is more helpful in terms of learning, as knowledge is transferred directly' (Interviewee 2, GSK). O'Leary (2000) supports this view as he emphasizes the need to invest in training that should be made available in the form of 'on-the-job training and on-site support'. This is more cost-effective than sending staff to gain knowledge externally from SAP. The main reason behind this is 'SAP will only train them on a vanilla system, and so employees will find adaptation to their own firm harder' (Interviewee 3, T-Mobile).

Figure 6: SAP after-sales support



The above pie charts show that GSK on the whole find SAP's after-sales service less helpful than T-Mobile. 40% of GSK employees thought the service by SAP is 'poor' while a vast 67% of T-Mobile employees selected 'effective'. Only one participant at GSK chose 'effective', while one employee at T-Mobile chose 'Very effective'. This may be because T-Mobile uses SAPs help and support service more widely than GSK. From information depicted from the interviews, GSK employees agreed that they did not take maximum advantage of SAPs after-sales service. Had they used the help offered by SAP as often as T-Mobile, they would have been more likely to respond in the same way. In fact, using SAPs well-established help service can allow a faster response to queries, as oppose to trying to find a solution internally. As O'Leary (2000) states, gaining advice from senior authorities enables a full understanding on behalf of the consumer and 'increases the chances of the software

application ensuing an effective integration'. This can be related to the level of efficiency in both firms, as shown in Figure 4, in which both firms revealed that processes are not as efficient as they could be.

Many firms fail to recognise the help offered through the Internet by SAP, which aids organizations to get the best possible results after integrating their software. SAP Community Network (SCN) consists of analysts and experts, providing an opportunity to gain and share knowledge regarding the various elements within an ERP implementation (Jha, 2008). This view is supported by a previous study conducted by Yolton (2010) in which he states, SCN has more than 2 million members all over the world and is largely viewed as 'a best practice in social networking for business'. This service is not taken advantage of by GSK and T-Mobile as respondents in the interviews explained that they had either not heard of the offering, or usually choose to pick up the phone and call SAP regarding any issue. Using SCN to search for the topic of issue may decrease the time taken for SAP to provide a solution over the phone as their 'waiting queue is endless' and very time-consuming. Searching for the issue on the web provides instant results, however, a considerable number of firms do not take advantage of information made available through the SCN although 'these facilities help implement newly bought software and solutions successfully' (O'Leary, 2000).

As a result of increased usage of the external help provided, processes can be completed on time within the deadlines given, and the likelihood of quality being undermined is very low, as SAPs expertise and experience in handling similar queries is likely to be more effective. This process of trying to integrate a wider use of SAP itself as a source of aid may result in employee tasks and processes achieving efficiency for GSK and T-Mobile. This view is supported with previous studies carried out by Ackerman (2011), who assures 'SAP have the ability to give new clients a prompt start when integration is initially planned, and claim that businesses will 'see results in weeks'.

Efficiency may also be defined as how much significance a firm gives to measuring productivity after the implementation of an ERP system has begun. Nah et al. postulate, 'any project is considered incomplete without allowance for feedback and

post evaluation'. Firms must understand the importance of carrying out a formal feedback and monitoring process as this proves to be the basis of an ERP implementation success or failure. Failing to establish a process that accumulates the productivity achieved so far, puts firms at a disadvantage as they cannot uncover the aspects of the implementation which are not going as planned, and whether or not employees have new suggestions referring to improved ways of working.

Interviewee 3 (T-Mobile) claimed 'we do have a feedback and monitoring but I am not sure how effective or rigour this is'. The participant also confirmed that managers at T-Mobile prioritise monitoring each individuals output, as oppose to measuring how effective the whole implementation is so far. This results in a lack of appropriate decisions when considering how the system should be developed further within the organisation. Interviewee 4 (T-Mobile) specified how this process makes each employee feel 'they are not trusted and like they are being watched'. On the other hand, according to Interviewee 2 (GSK), feedback from users in already rolled out markets seems positive and they are quite happy with the new system' as it has cut down a lot of extra work in some places. This is because processes that were carried out manually are now automated, e.g. three tasks have been cut down into one task via automation. Although this has caused many people to be made redundant since their job role is no longer required, it has lead to GSK saving significant amounts of money, which is their ultimate aim of implementing the ERP system.

However, T-Mobile fails to measure whether a quality output is achieved, and focus more on how much output is achieved. This explains why the firm cannot tackle issues that are more relevant to the successful implementation of an ERP system. For example, T-Mobile lacks an effective testing system, and the current processes of testing increase the workload as glitches are found even after a fix has been issued (Interviewee 4, T-Mobile). According to Finney and Corbett (2007), the feedback and monitoring process should 'consider and check whether goals and objectives that were set up earlier are being met', whilst the performance of employees should also be measured to aid the overall evaluation process.

4.3. Summary

The research carried out at T-Mobile and GSK gave an insight into the way ERP is implemented, and the factors that lead to its failure. The author of this research study also focused on the provision of ERP training, and the after-sales service provided by SAP. The questionnaires and interviews carried out implied that both firms failed to have appropriate measures in place, which would ensure a successful implementation of the ERP system. The research study revealed factors leading to ERPs failure, which consisted of exceeding the assigned budget, poor project management, a lack of commitment and support from management, and a lack of communication within the firm.

Also, the provision of poor training resulted in employees having to request further training so that they could fulfil their daily tasks more efficiently. It is significant to offer sufficient training, however, both firms were currently providing employees with training that consisted of general knowledge about SAP and its modules. This did not benefit them in any way, as proper training must be given 'on-the-job' so that knowledge and experience can be transferred directly.

Additionally, both GSK and T-Mobile did not seem to take maximum advantage of the after-sales support service provided by SAP and instead of utilizing SAP's online Community Network (SCN), employees had a habit of calling SAP directly and waiting in endless queues, which was not time-efficient. It was also evident that firms had not yet established an effective feedback and monitoring process that could aid them in measuring the productivity levels of employees as well as the overall system, and how these can be developed to ensure the successful implementation of ERP.

Chapter 5:

Conclusion

Written By

Humera Yakub

5.1. Introduction

The aim of this dissertation was to find the reasons behind why organisations fail to implement SAP's ERP system successfully. It is important to note that the title of this research paper has been changed significantly, as it initially focused on failed implementations of SAP in general. After the author had begun reviewing the literature available, it was acknowledged that SAP was a massive firm to tackle within this paper and the breadth of this area was realised. Hence, the decision to narrow the research question was made, focusing entirely on the failure of an ERP's implementation in specific.

In today's competitive market conditions, 'large firms cannot compete without ERP systems' as Crumley et al (2010) suggests, and such systems are used as enablers rather than differentiators for these organizations. An ERP system aims to streamline processes and integrates standardisation between all divisions that may exist within a firm, which enables the smooth running of a wide range of daily processes that employees usually encounter. ERP aims to achieve better decision-making ability and increases the level of efficiency, which results in the overall business running more successfully.

According to Gross (2011), 'approximately 70% of all ERP implementations fail', this is the reason why the research study carried out in this dissertation aimed to explore the factors leading to ERP's failure. In order to answer this question, the following were also explored: 1. The effectiveness of ERP training that is provided within an organisation, 2. Whether SAP provide a satisfactory after-sales service and, 3. The importance of incorporating a feedback and monitoring process while ERP is being implemented.

To answer the stated questions, the author decided to carry out 4 semi-structured interviews and 30 questionnaires within two firms, GlaxoSmithKline (GSK) and T-Mobile, that have decided to implement the ERP system but have been recently experiencing issues, which has hindered the successful implementation of the system. The questionnaires and interviews aided the researcher to combine the information gathered and establish a case study for each firm. These were used to

conduct a comparative analysis so that a true representation of the wider target audience was achieved, enabling the author to make generalizations.

The findings from the two firms and the literature review revealed a few common problems that arose frequently, leading to failed ERP implementations. Firstly, poor project management skills led to a larger array of problems, including de-motivation, a lack of communication, and high staff turnovers. Increased costs became the evident result of other aspects not being as effective as possible. This included poor project planning skills, as 'established processes were unnecessarily long, unstructured, and inconsistent' (Interviewee 2, GSK), as well as insufficient training offered to employees. Employees at GSK and T-Mobile claimed that more training in the field they specialised in would assist them in carrying out their tasks more efficiently. Failing to provide this led to increased costs as deadlines were not being met and the quality of work produced was not satisfactory.

Firms also failed to understand the importance of changing current business processes, in order to suit the new ERP system, which led to the employment of inefficient methods. 'Shaping the business to fit the new ERP system is unavoidable' (Nah et al. 2001), despite this, both GSK and T-Mobile failed to incorporate effective organizational change management tools, which would have helped individual firms to align itself with the general ERP functionalities.

It is presumed that organisations would find my area of study interesting as Gross (2011) explains, 'all around the globe, large organisations as well as small, are turning to various forms of advanced technology to assist them in functioning more effectively'. The findings of this research paper would be specifically relevant to and hold significant value to managers in organisations that are considering the implementation of ERP.

When conducting the literature review, it became clear that the data for this study must be extracted from reliable sources so that the information collected could be compared to that of expert opinions within the literature review. For this dissertation to be of extensive use to current and future firms intending to implement an ERP system, it was critical for the researcher to gain a deep insight into the real issues

behind the implementation process of large IT systems. It is believed that this research paper has provided sufficient answers to the specific questions it aimed to explore. The data found is best shown in the findings and discussions, where it is revealed that some aspects of an ERP implementation are more important than others. For example, the importance of training was emphasized in both, the primary research study and in the literature that was reviewed. However, the significance of firms incorporating a feedback and monitoring process was not mentioned in previous studies, although participants believed this is one of the main causes of ERP failure.

Although the research carried out for this paper was done to the author's best ability, it is worth noting the limitations that were encountered as part of this dissertation. Firstly, it is vital to note that the research was being carried out under a small timeframe and therefore, the desired amount of interviews and questionnaires cannot be carried out as this would be too time-consuming, although it would provide more valid results. Secondly, the researcher may not have held expert knowledge of ERP, resulting in the misunderstanding of some phenomena and interpreting information provided within the interviews in a different way. Ethical issues were also considered and overcome in this paper, as the researcher held the responsibility to safeguard the privacy and safety of all research participants. Among these, consent and confidentiality in the research process were considered for moral reasons, as well as gaining permission from the selected participants and ensuring them that anonymity was guaranteed.

Once the topic of this paper had begun to be investigated, an extensive range of possible research studies was uncovered. This included exploring the factors of ERP failure within different industry sectors, such as Finance, Education, Recruitment, etc. Also, the research carried out by the author revealed the main factors of failing ERP implementations, and it would be interesting to break these factors down further into different categories so that the specifics can be revealed. Also, researchers may want to consider the factors leading to an ERP implementation success, and as the IT industry is continuously changing, it would be fascinating to note how the results of a similar research study will change over time and whether the same factors lead to ERP implementation failure or whether new factors must now be considered.

5.2. Summary

This research paper was successful in carrying out an ethical and valid research study that sufficiently answers ‘what are the reasons behind why organisations fail to implement SAP’s Enterprise Resource Planning system successfully?’

The main factors leading to failed ERP implementations involve: 1. An incorrect decision to implement a customized package, instead of the recommended standard software, 2. The importance of project planning and project management is undermined, 3. The lack of commitment and support from project managers leading to de-motivation and high staff turnovers, 4. A lack of effective change management tools, and 5. The non-provision of adequate training. These factors all accumulate and result in being significantly over the initially planned budget. However, incorporating simple solutions to overcome the above identified issues, will lead to a successful and effective ERP implementation.

Chapter 6:

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Written By

Humera Yakub

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Chapter 7:

Appendices

Written By

Humera Yakub

7.1. Appendix A – Research Risks

The table below shows a list of issues that may arise while carrying out the research, each ranked according to its likelihood, severity and the contingency plan to help minimise the impact.

Main Risks	Likelihood	Severity	Contingency Plan
Lack of resources i.e. absence of interviewee, computing facilities, supervisor interaction.	Less Likely	High	Keep a note of supervisor/interviewee availability and plan ahead when their input is required, so that they are available.
Time required studying for other modules, not anticipated at first.	Likely	Low	Prepare a timetable to schedule my time more efficiently between modules. Include time allowances of two days for unexpected problems.
Serious failures in technology causing disruption in carrying out planned tasks.	Less Likely	High	Try to prepare material two days in advance, in order to give time for any unexpected technical issues.
Hardware failures leading to loss of work.	Less Likely	High	Perform regular backups of all work, so if by any chance I lose any work I am able to recover it.
Unexpected issues which arise for the research participant/supervisor resulting in unavailability.	Likely	Medium	To have details of a secondary contact who is able to fill in for the research participant/supervisor when needed.
Problems regarding the availability of research locations for interviews	Less Likely	High	Ensure interview rooms are booked well in advance and confirm booking a day before.

7.2. Appendix B – Interview Consent Forms

Participant Consent Form

Title of research study: Why do firms fail to implement SAPs ERP system successfully?

Humera Yakub, Final year student at University College London

	Please initial box
1. I confirm that I understand what the research is about and have had the opportunity to ask questions.	☐
2. I understand that my participation is voluntary and that I can withdraw at any time without giving a reason.	☐
3. I agree to take part in the research.	☐

	Please tick box Yes	No
4. I agree to my interview being audio recorded.	☐	☐
5. I agree to the use of quotations anonymously in publications.	☐	☐

Name of participant: …… Signature: ……

Name of researcher: …… Signature: ……

Date: ……

Participant Consent Form

Title of research study: Why do firms fail to implement SAPs ERP system successfully?

Humera Yakub, Final year student at University College London

	Please initial box
1. I confirm that I understand what the research is about and have had the opportunity to ask questions.	F. H
2. I understand that my participation is voluntary and that I can withdraw at any time without giving a reason.	F. H
3. I agree to take part in the research.	F. H

	Please tick box: Yes	No
4. I agree to my interview being audio recorded.	✓	
5. I agree to the use of quotations anonymously in publications.	✓	

Name of participant: Falak Hussain Signature: Falak.

Name of researcher: Humera Yakub Signature: H.Yakub

Date: 15/03/2013

7.3. Appendix C – Questionnaire

Dissertation Questionnaire on SAP's ERP system

This is a fairly short questionnaire and should take approximately 10 minutes to complete. The main purpose is to find out how easy it is to implement SAP's Enterprise Resource Planning system and the reasons behind a possible failure. Please note: all information provided will be confidential and the results will be analysed anonymously. Please answer the following:

1. Name: (optional)

   _____

2. What age group are you in? (Please circle)
   a. 20-25
   b. 26-30
   c. 31-36
   d. 37+

3. Male or Female? (Please circle)
   a. Male
   b. Female
   c. Prefer not to say

4. What is your current job role?

   _____

   _

5. Which of the following modules within ERP do you have experience in? (Please circle. You may choose more than one)
   a. HR
   b. Finance
   c. Sales and Distribution

d. Procurement
e. Supply Chain Planning
f. None of the above
g. Other (please state)

_____

6. Were you working here before the ERP system was introduced into this firm? (If no, please move to Question 8)
    a. Yes
    b. No

7. Do you think appropriate measures were taken to ease the implementation process?
    a. Yes
    b. No
    c. Not sure

8. Have you faced any major problems while working on your project? (Please circle)
    a. Yes
    b. No

9. Which of the following categories do these problems come under? (Please circle)
    a. Project Planning
    b. Project Management
    c. Lack of commitment and support from seniors
    d. Lack of change management tools
    e. Cost
    f. Adequate training
    g. Lack of feedback and monitoring
    h. Other (please state)

_____

10. Can you think of any other reasons not stated above for issues arising within ERP?

_____
—

11. Do you feel your manager is easily approachable? (Please circle)
    a. Yes
    b. No
    c. Not sure

12. Are processes within the project you are working on as efficient as they could be? (Please circle)
    a. Yes
    b. No
    c. Not sure

13. Do you usually know where/who to go to, in order to find what you need? E.g. documentation, process guidelines, project timelines, etc.
    a. Yes
    b. No
    c. Not sure

14. Was training provided before starting this job role? (Please circle)
    a. Yes
    b. No
    c. Not sure

15. How often is further training provided? (Please circle)
    a. Less than 3 months
    b. Every 3 months
    c. Every 6 months
    d. Every 9 months
    e. Once a year

f. Other (please state) _____

16. Do you think the provision of more training on ERP will be beneficial to you?
    a. Yes
    b. No
    c. Not sure

17. Is there a feedback and monitoring process in place to measure the ERP system's productivity?
    a. Yes
    b. No
    c. Not sure

18. Finally, how would you rate the after-sales support provided by SAP? (1 being least satisfactory, and 5 being most satisfactory)

1 2 3 4 5

Thank you very much for completing this questionnaire. Your help is very much appreciated.

Dissertation Questionnaire on SAP's ERP system

This is a fairly short questionnaire and should take approximately 10 minutes to complete. The main purpose is to find out how easy it is to implement SAP's Enterprise Resource Planning system and the reasons behind a possible failure.
Please note: all information provided will be confidential and the results will be analysed anonymously. Please answer the following:

1. Name: (optional) Ram

2. What age group are you in? (Please circle)
   a. 20-25
   b. 26-30
   c. 31-36
   d. 37+

3. Male or Female? (Please circle)
   a. Male
   b. Female
   c. Prefer not to say

4. What is your current job role? Supposedly "Application Security" SAP Consultant

5. Which of the following modules within ERP do you have experience in? (Please circle. You may choose more than one)
   a. HR
   b. Finance
   c. Sales and Distribution
   d. Procurement
   e. Supply Chain Planning
   f. None of the above
   g. Other (please state) _____

6. Were you working here before the ERP system was introduced into this firm? (If no, please move to Question 8)
   a. Yes
   b. No

7. Do you think appropriate measures were taken to ease the implementation process?
   a. Yes
   b. No
   c. Not sure

8. Have you faced any major problems while working on your project? (Please circle)
   a. Yes
   b. No

9. Which of the following categories do these problems come under? (Please circle)
   a. Project Planning
   b. Project Management
   c. Lack of commitment and support from seniors
   d. Lack of change management tools
   e. Cost
   f. Adequate training
   g. Lack of feedback and monitoring
   h. Other (please state) _____

10. Can you think of any other reasons not stated above for issues arising within ERP?
    Poor skills within GSK Perm. Staff & laziness

11. Do you feel your manager is easily approachable? (Please circle)
    a. Yes
    b. No
    c. Not sure —> doesn't listen, in his own world

12. Are processes within the project you are working on as efficient as they could be? (Please circle)
    a. Yes
    b. No
    c. Not sure

13. Do you usually know where/who to go to, in order to find what you need? E.g. documentation, process guidelines, project timelines, etc.
    a. Yes
    b. No
    c. Not sure

14. Was training provided before starting this job role? (Please circle)
    a. Yes
    b. No
    c. Not sure

15. How often is further training provided? (Please circle)
    a. Less than 3 months
    b. Every 3 months
    c. Every 6 months
    d. Every 9 months
    e. Once a year
    f. Other (please state) None

16. Do you think the provision of more training on ERP will be beneficial to you?
    a. Yes
    b. No
    c. Not sure

17. Is there a feedback and monitoring process in place to measure the ERP system's productivity?
    a. Yes
    b. No
    c. Not sure

18. Finally, how would you rate the after-sales support provided by SAP? (1 being least satisfactory, and 5 being most satisfactory)

    1 2 3 4 5

Thank you very much for completing this questionnaire. Your help is very much appreciated.

7.4. Appendix D – Interview Script

Dissertation Interview on SAP's ERP system

Hi, my name is Humera Yakub and the main purpose I am carrying out this interview, is to find out how easy it is to implement SAP's Enterprise Resource Planning system and the reasons behind a possible failure. Is it ok if I record this interview to transcribe into text after? I can give you a copy of the audio CD if you wish.

1. If you don't mind me asking, how old are you?

2. What is your current job role?
   (Probe) Which ERP modules do you have experience in? E.g. HR, Finance, Sales and Distribution, Procurement, Supply Chain Planning.

3. Were you working here before the ERP system was introduced into this firm?
   (Probe) Do you know if this firm adapted a pre-designed package or a customized package?

4. Do you think appropriate measures were taken to ease the implementation process? *(Probe)* Do you think the project was 'planned' effectively throughout the whole implementation?

5. Have you faced any major problems while working on your project?

6. What do you think are the reasons behind failed ERP implementations? E.g. Project Planning, Project Management, Change management tools, Cost, Training, Feedback and monitoring.

7. What are your views on the 'cost' aspect while implementing an ERP system?

8. To what extent do you think employing 'the right set of people' is important? Or do you think training can bring about the 'right set' no matter what their past experience is.
   (Probe) Do you think the provision of more training on ERP will be beneficial to you?

9. Is there a feedback and monitoring process in place to measure the ERP system's productivity? How does it work?

Thank you very much for taking time to participate in this research.
I really appreciate your help.

Name: Humera Yakub
Student Number: 1019455

Dissertation Interview on SAP's ERP system

Hi, my name is Humera Yakub and the main purpose I am carrying out this interview, is to find out how easy it is to implement SAP's Enterprise Resource Planning system and the reasons behind a possible failure. Is it ok if I record this interview to transcribe into text after? I can give you a copy of the audio CD if you wish.

1. *If you don't mind me asking, how old are you?*
   48

2. *What is your current job role?*
   SAP consultant
   (Probe) Which ERP modules do you have experience in? E.g. HR, Finance, Sales and Distribution, Procurement, Supply Chain Planning.
   Sales and Distribution

3. *Were you working here before the ERP system was introduced into this firm?*
   Yes
   (Probe) Do you know if this firm adapted a pre-designed package or a customized package?
   Yes, predesigned package, it used to be called iCERPS (Commercial ERP System), the older system.
   SAP provides you with a template, a vanilla ERP system (you still pay per module), GSK called this iCERPS. Then GSK customized this system according to their needs. Then GSK hired consultants and they realised that it will be better to have a new standard ERP system and start from scratch and not use the customized iCERP system, otherwise, SAP's ERP benefits can't be taken advantage of. iCERPS was completely dropped and not rolled out into any global markets, the new system is called CERPS. At the moment, many areas of GSK are still using old legacy systems, but this will be changed as soon as the global CERPS roll out is complete. The legacy systems act as a down factor that needs to be changed into the new standard

ERP system, which has been recently implemented. This is being done slowly and as efficiently as possible. The new ERP system aka CERPS is currently trying to replace all the legacy systems within GSK.

4. *Do you think appropriate measures were taken to ease the implementation process? (Probe) Do you think the project was 'planned' effectively throughout the whole implementation?*

   No, because they hadn't done it before, they didn't know what to expect and didn't have much knowledge. At the beginning, correct resources were not present, and the correct people with the appropriate expertise were not hired. The company did not know what was needed; hence a lot of money was wasted on hiring contractors that were not required.

   At the beginning, the project was not planned effectively as it could have been and this led to exceeding the budget. As a matter of fact, this project was over-staffed at the beginning. Exceeding the budget at the start has led to being over-budget at the moment, which leads to cutting costs and staff dramatically. This is negatively impacting the future of this implementation process as required staff and expertise are being cut. Staff are working longer hours and carrying out multiple tasks to juggle the workload of the cuts that have been made. E.g. Before, it was 5 people to a country, and now there are only 2. This had led to de-motivation and high staff turnover due to the increased workload as nobody wants to work long hours and be highly stressed. People are leaving themselves, these are the staffs that work for another consultancy firm, and they request their firm to move them from GSK. This leads to a loss of knowledge.

5. *Have you faced any major problems while working on your project?*

   Too much going on at the same time, hence time management becomes very hard. Deadlines are close to each other and senior management prioritise deadlines, rather than quality of work. GSK's decision to implement ERP across multiple markets makes it difficult for us to prioritise which market to work on currently. There are issues with processes within the project/program. The processes that must be followed are very long, they are not very structured or consistent, and some people do not know what the

process is. Hence, new people can't manage their time effectively as they rely on these processes too much which don't provide much knowledge and information at the end of it. These are any processes that require making a change to the CERPS template (CERPS is a template provided by SAP and you start configuring it according to GSK's requirement while abiding by SAP standard).

6. *What do you think are the reasons behind failed ERP implementations? E.g. Project Planning, Project Management, Change management tools, Cost, Training, Feedback and monitoring.*
   Cost would be one of the things; people end up over-spending without realising. Sometimes you have to hire SAP staff on-site to guide you throughout the implementation. Only a large organisation can afford this but it still costs A LOT of money. For e.g. a SAP staff would cost GSK over £1000 per day. Experiences SAP consultants also need to be hired. Cost element of training your internal staff to learn SAP, because they can be put on the project, but they would not know what to do. Normally, the biggest issue is that the management of the project are not experienced or knowledgeable enough to make an informed decision that maybe involves billions of pounds. Change control process (the process you need to follow to get into the live system) is very good at GSK so cant comment on that. We have vigorous testing, but very time consuming so when an urgent change request comes in from a live market, i.e. already on CERPS, going through the whole change control process can take a very long time before the change can go into the live system and rectify the problem.

7. *What are your views on the 'cost' aspect while implementing an ERP system?*
   Look above.

8. *To what extent do you think employing 'the right set of people' is important? Or do you think training can bring about the 'right set' no matter what their past experience is.*

I disagree the last statement. The right set of expertise is needed on the project for it to be a successful implementation, The training that SAP provides will only give you a high level knowledge on how SAP works and what functionality it offers. However, you will never have a complete understanding unless you have experience of a complete SAP lifecycle. Training people to the standard you want is too time consuming and not cost efficient. Shadowing people is more helpful in terms of learning as knowledge is transferred. This is more effective than sending them out to gain knowledge from SAP. SAP will only train them on a vanilla system, hence they wont ever have knowledge about their own company's system, and so they will find adaptation harder.

(Probe) Do you think the provision of more training on ERP will be beneficial to you?

Yes, in certain areas that are more complex. E.g. there are certain areas within the S&D module, which are more complex to understand, so I have requested for extra training on that.

9. *Is there a feedback and monitoring process in place to measure the ERP system's productivity? How does it work?*

   I'm not sure of a formal feedback process, but feedback from users in already rolled out markets seem quite happy with the new system and it has cut down a lot of extra work in some places. E.g. some processes that were carried out manually are now automated. Or 3 tasks have been cut down into one task via automation. The disadvantage is that because the system is now in place, many people have been made redundant since their job role is no longer required, as the system automates this. For GSK, this saves them a lot of money, which is their ultimate aim of implementing the ERP system.

Thank you very much for taking time to participate in this research.
I really appreciate your help.