



: KNOWLEDGE AND INFORMATION MANAGEMENT OF TESCO

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Introduction

The purpose of this report is to ascertain by using Tesco as an example. Over the course of the report, it will show how Tesco benefits from using information systems. Furthermore, what type of information systems Tesco uses this will be described alongside the inputs of each system? How the process of the system works, and the output of the system Tesco uses. Also, by investigating the IS/IT systems uses and how by using these systems this helps Tesco gain a competitive advantage. By investigating techniques from published theories. Explaining what challenges Tesco may face when implementing an enterprise resource planning system and how Tesco overcome these barriers and problems. The report will then Conclude with a plan that shows in a step-by-step way the most effective way that Tesco can implement the system.

2 Information systems

An information system is a system that can assist a business in numerous ways.

The day to day running of a business.

An information system can help to increase the profits of a business help boost the company's market share. Information systems can help when distributing

Information systems can be used when cultivating the information gathered

this in turn can assist around building customer relationships. Information systems are an integral part of any big business especially concerning retail to be able to use an information system to grow your customer base and retain pre-existing customers in a modern world where most things are digitised being able to use an information system is imperative

The way that Tesco has been able to adapt to the extraordinary changes in business over the last few decades has been immense. The company has gone from the reputation as a buy in bulk sell on cheap retailer to becoming one of the united kingdom's leading retail companies with retail operations in countries as far-flung as Ireland, Poland, Malaysia, and Japan. In the United Kingdom its loyalty card and its e-commerce operations are world-leading, and its expertise in these fields is much in demand (Humby, Hunt and Phillips, 2003).

With a reputation for technological innovation, Tesco has always made money from information. But this major UK supermarket chain has been able to innovate in electronic commerce, loyalty cards and databases while spending proportionately less on information technology (IT) than its rivals.

The company has been able to keep technology costs low by having its technology department in one centralised place. The way Tesco has expanded so well is the information systems being used. It can change from store to store and country to country and community to community. Tesco has also set up international competence centres specifically for the development of technology. Its point of sales system that is used at every checkout. This is ideal as the point of sales system collects the information required at the checkout this changes from store to store this information gathered by the system can help with stock replenishment and the ordering of new

products. Its electronic development has assisted with the reduction in fresh food ordering time this is down to 24 hours previously the time had been up to a fortnight. Tesco.com based in the United Kingdom is the internet division of Tesco plc and has an annual turnover of over \$2b. It also retails electrical items and other non-grocery related products from its head company Tesco plc. Tesco have innovated by choosing a system called Sonetto.

The benefits of such a system include having the ability to obtain information about the customers' buying habits especially if the customer is part of a customer loyalty scheme.

Having such a system will also benefit Tesco by showing the company the customers' buying habits. This system will be able to aim other products towards them which will achieve a sales increase of the aimed products.

These systems can be linked to suppliers automatically which will help keep stock levels good and with the ordering of stock. Although benefits of using an information system can be related to the retailer, they can be found. Respectfully, privacy concerns of the consumer could be raised. According to (Pizzi, 2020) the mere fact that online and offline shopping has increased astronomically partly due in part to the global pandemic. This article wrote about the differences in perceptions of how a business/retailer uses the information gathered through the information systems used. Furthermore, it suggests how a company is affected when there are breaches in data security dealing with customers' information captured by such information systems. Whether this be through lack of trust in a company or choosing another retailer that gathers less information in a more secure way, information systems are necessary for a business to thrive and succeed in markets they currently trade in but by using the information gathered to move into new markets. The customers' data security must always be of utmost importance as security breaches and leaking of customers' confidential information can be costly on both trust and profits of a business.

It has been suggested that information systems (Periria, J, 2021) can capture information on numerous levels. This then enables the information to be used from planning strategies. The system that Tesco has implemented may improve customer

relationships in the way of. The customers' needs being met by Tesco using information systems. This allows Tesco to give the customer more of what they want and less of what they do not. the customers favourite items placed in eyesight or in suggested items when using the online shopping service. Therefore, the customer develops the idea that Tesco is attentive to their needs furthermore cementing the relationship between the customer and Tesco which is of course a huge benefit to Tesco and the growth and expansion of their business.

In a book (Francis, M,2004) a case study was taken on test it explained that Tesco had ran their operations from its headquarters in chestnut. It did however also use information and data gathered from its reginal distribution centre from suppliers from the information gathered it was able to adapt through processing the information gathered how to fulfil customer needs which is the main objective of the business.

According to (Argawal, P, 2014) the benefits Tesco has been able to gain through using the information systems that its odes are. An increased market share which shot up from 15.4% in 1999 to 29% in 20004 by using information gathered through search history products that have been previously purchased it can also capture information through its Wi-Fi which is available in Tesco stores this also helps with advertising online. It Has benefits as it gathers every piece of information it needs and send this information to all the correct recipients departments of its business from its day-to-day operational needs but also by being able to supply the customer with exactly what they require an also market other products to them that may be appropriate to what they have brought. this is a huge benefit to Tesco

3 Input Process Output

For this part of the report the input process and output of a chosen system that Tesco uses will be discussed. Firstly, input process and output will be explained. The system I have chosen is Tesco epos electronic point of sales system. Sonetto is a rule-based Multi-Channel Product Information Management solution targeted at users of the business. At the centre of Sonetto there is an enterprise rule engine which provides services to store and retrieve semantic information. Users of the business interact with the core rule engine through three applications: Enrichment engine – which Defines new products, editing and extending existing products and attributes Categorisation engine – Slicing and dicing product information in separate categories, providing different views to multiple stakeholders Discovery, or Search engine – Searching, validating, and discovering information, associated patterns and relationships by business users and end-customer

The way this can be explained is a is a TPS system this is called a transaction processing system

Input

The first part in the input the transaction this can be entered manually by pressing enter on a specific item. Or scanning using the barcode or even by using a touch screen dependant on which device is being used the input could be a product or a price or any other information that is entered into the system

Process

When the information is entered into the system it will take a record of all the data that has been recorded that day this can be used automatically or instantly to check what has been brought. The information can be used later and used when the information shows the amount of product that has been brought it will also help to reorder when stock is running low this is all done in an efficient way the information is there where required by management to make decisions about buying or any other reason or

indication the transaction processing system has recorded this knowledge gained from the transaction processing system can be used by more superior management this information can then be used when creating a report or assist in distribution being able to get orders in quickly and more efficiently

A process rule engine is used to make automated decisions. The information is collected then compared with other information collected by the system, thus allowing for processes such as buying and the ordering of stock can be done at a faster rate and automatically with out the need for staff to do this this saves money and less wastage

Output

The output of any transaction processing system is any report, or any decision made by following the transaction processing system repots is seen as an output and reaction or change in decisions based on read outs receipts front hr transaction processing system is out put

According to the article (Agostini,2017) the main objective of Tesco is to provide customers a little bit better every day. Tesco aims to make things easier for the consumer how do they achieve this by buying in bulk, aiming to keep prices low improve the amount of waste the business incurs improving its efficiency and creating systems that keep costs low. The input Tesco made was to create a worldwide supply chain for non-grocery items. When customers order these items. They are from suppliers chosen from developing countries which means Tesco can get these products at a reduced rate.

This is then processed when the items have been ordered they are put onto a same store trailer which means everything that is on the trailer is destined for the same store.

The output of this system is that less stock has to go into warehouses which means less wastage. This system also allows for a quicker turn around and by improving the way stock is sent out this in turn improves efficiency.

According to (Slimani, I,2018) the main objective of a supermarket is to meet the consumers' needs therefore leading to increased revenue and return business. For a company to be able to harmonise between supply and demand is a crucial factor. For a company to be able to get the correct product to the right customer in the right store in the right place for a price that does not cost too much to produce but to also be able to profit from this is an achievement. By being about to predict future needs of customers is an important function of any supermarket business. The information has been put into the system such as product, price, and weight etc this information is then processed this information then provides all the knowledge for the output which is where all the needs of the consumer are met. This can only happen if the supermarket analyses the information gathered correctly and implements this in its supply and demand chain

4 Competitive Advantage

The way Tesco has been able to gain a competitive advantage over its rivals is down to the fact that Tesco knows how to do one thing very well. Diversify as a company that started out as a greengrocer. Tesco has moved into different markets from the weekly shop to banking, mobile phones, car insurance clothing and electricals. Tesco is now one stop shop for every consumer need. This is the strength Tesco must recognise new markets and how to profit from such markets

Tesco could have used porters generic strategy which according to (Allen,R,2006) from its creation in the 80's Porters generic strategy has been used in business worldwide Poerter identified strategies that can be grouped onto a generic type differentiation, cost leadership, focus or combination

In relation to Tesco and how it gains and retains is competitive advantage

1. Cost leadership

With a cost leadership focused planning Tesco will have hoped to become business with low cost producing methods. One wly to do this is to become the biggest company. This will have enabled Tesco to which gives Tesco the ability to buy more

for less as it has a bigger market share. by gaining better access to suppliers than its competitors. If Tesco continues to do these things, then it will maintain its competitive advantage over its rivals. Supply chain management is essential by integrating its systems with its suppliers systems this leads to only stock that is needed being ordered which leads to less wastage therefore giving tesco a competitive advantage over its rivals

2 by being different

This strategy allows Tesco to stand out over its competitors within the supermarket industry. This is something that consumers like this makes them return. By Tesco positioning itself a business where it can meet customers' needs and charging a price that is profitable for the business therefore giving it a competitive advantage

3 Focus

A focus-based strategy has two distinct types

A cost focused plan will mean suppliers giving Tesco the lowest price for Tesco to make more profit therefore retaining its competitive advantage

If Tesco as differentiation focused plan it must really stand out from its competitors and be noticed by its intended market. In this case Tesco must meet the differences in needs to consumer requires better than its competitors can provide

A cost focused strategy utilises the differences in price were as a differential strategy utilises the special needs of its customers.

In a study (Rowley,J,2007) the subject of the the introduction of the club card to the business set up was discussed and how this has allowed Tesco to formulate a new way to run its business the information gathered by the club card allows Tesco in its decision making the development of new products and ultimately how it provides service to the consumer (the Tesco club card holder.

The data collected from the club card now effects all aspects of Tesco as a business

Tesco has recognised that by having good strategies this can improve the way the business progresses in it objectives when in relation to cost leadership, differentiation and focus strategy's. in a climate of globalized companies' competition is inevitable.

For a company to succeed it is often thought it must concentrate on a singular goal its cost leadership system which aims for creating/producing a product at the lowest possible price to the company

A differentiation strategy however focuses on the product being uniquely different when in comparison to the business's competition.

In paper (Barato,M,2017) suggest a combination of both cost leadership and differentiation is how globalized companies move forward into days competitive business world by using the two strategy's in synchronization the ultimate goal is achieved a product or service that has been produced for the lowest price to the business but also a product or service that is unique therefore creating differentiation from its competitors

5 ERP challenges/ Implementation of new ERP system

Enterprise resource planning or ERP for short is a popular business management system it allows for on the spot information to be relayed in an instant. Therefore, allowing for communication to run smoothly within large companies/ organizations /businesses

As an ERP system effects the company from the process to the staff within the organization and also along with that the culture within the workplace.

According to the website (software advisory service, 2019) there are 6 challenges when implementing a new ERP system.

The first key ERP challenge is

5.1 Integration

This part is concerned with the systems that TESCO already has in place. Which parts of Tesco's systems would benefit from the new ERP system and make it work optimally

And which parts of Tesco's systems would the new ERP slow down the productivity of the business therefore going against the reasoning for implementing the new ERP system in the first place

5.2 Flexibility

If the new ERP system is not flexible enough Tesco may have to change some of its processes to match up with the new ERP system for the ERP system to work. By selecting the right software for Tesco's requirements this will ensure the integration of the new ERP system runs smoothly. Therefore, eliminating the flexibility aspects

5.3 Resistance to change

Despite the rewards a new ERP system could bring to Tesco. The staff within the company may not like change and by replacing a system the staff are accustomed to this can bring about resistance which can ultimately lead to delays. This can also be hindered by the staff's failure to grasp the necessity of implementing the new ERP system. Therefore, time should always be taken to train the staff before implementation of a new ERP system. By focusing on the positives of the new ERP system can bring to Tesco and its staff highlighting the ways the new ERP system will make Tesco staffs working life easier

5.4 Vetting vendors

often when the procurement of a new ERP system a company can be attracted by big promises. It is only when the new ERP system is in place that these promises do not appear and problems with the system arise. This is why Tesco should never put a new ERP system in place until it has shopped about research into the benefits of ERP systems of several companies should be taken into consideration. This will enable Tesco to be sure of what they're buying therefore making the implementation of a new ERP system easier and more successful

6 Maintenance costs

A new ERP system will need to be reviewed and maintained on a regular basis. A system that may have seemed inexpensive when first purchased, could turn into quite a costly system if the maintenance costs are not factored into the whole implementation of the new ERP system

The understanding and use of key features of the ERP system

Although Tesco could put vast amounts of money into the procurement of a new ERP system. This however will not result in success the ERP system has to be understood by the user. If the user of the new ERP system does not now or is not aware of the key ERP features. Then Tesco will miss chances and information that are involve in the process of the new ERP system. This will furthermore result in the failure of the key objective of the ERP system to speed up the Tesco's functionality and productivity which is the whole reason for Tesco wanting to introduce the new ERP system in the first instance

5,B

For the last Part of this report a timeline of the implementation of a new ERP system will be explained as suggested by (gloabaltecks, 2020) for smaller companies a timeframe of 3-6 months for an ERP to work with in a smaller business but for larger companies such as Tesco the implementation of a new ERP system can take up to 3 years. Considering these factors, the following steps are set out

1. Investigation

when looking for a new ERP system to implement Tesco should firstly investigate which ERP system is best suited to then as a business if the investigation into a new ERP system is not carried out in the correct manner this could result in failure in its implementation

2. The requirements of the ERP system

Should be clearly defined Tesco will have many different requirements if these requirements are not defined clearly this could lead to the length of time the implementation of the ERP system to be implemented will or could be delayed

3. The users of the system

Should be defined. Each department within tesco will have different needs. Each of these needs should be defined so that the users in each department knows exactly the key features needed according to their requirements

4. Size of the organization.

Due to the size of Tesco as a business this will mean it requires ERP software that is able to go between lots of different branches and departments within the company nationwide or even worldwide when it comes to suppliers

5. expectations of the ERP system

This is what Tesco as a business expects from the ERP system. That all the challenges of managing the information collected will be met. If these obstacles are not overcome this could again lead to a delay in the timeline of the implementation of the new ERP system

6 Customisation of the ERP system

This can be one of the most time-consuming parts of the implementation of the ERP system. Customisation of the ERP system allows for adjustments to be made to suit the business needs of Tesco. The customisation should be explained to the users so they can understand the adjustments if this is not done this can lead to the timeline being overrun

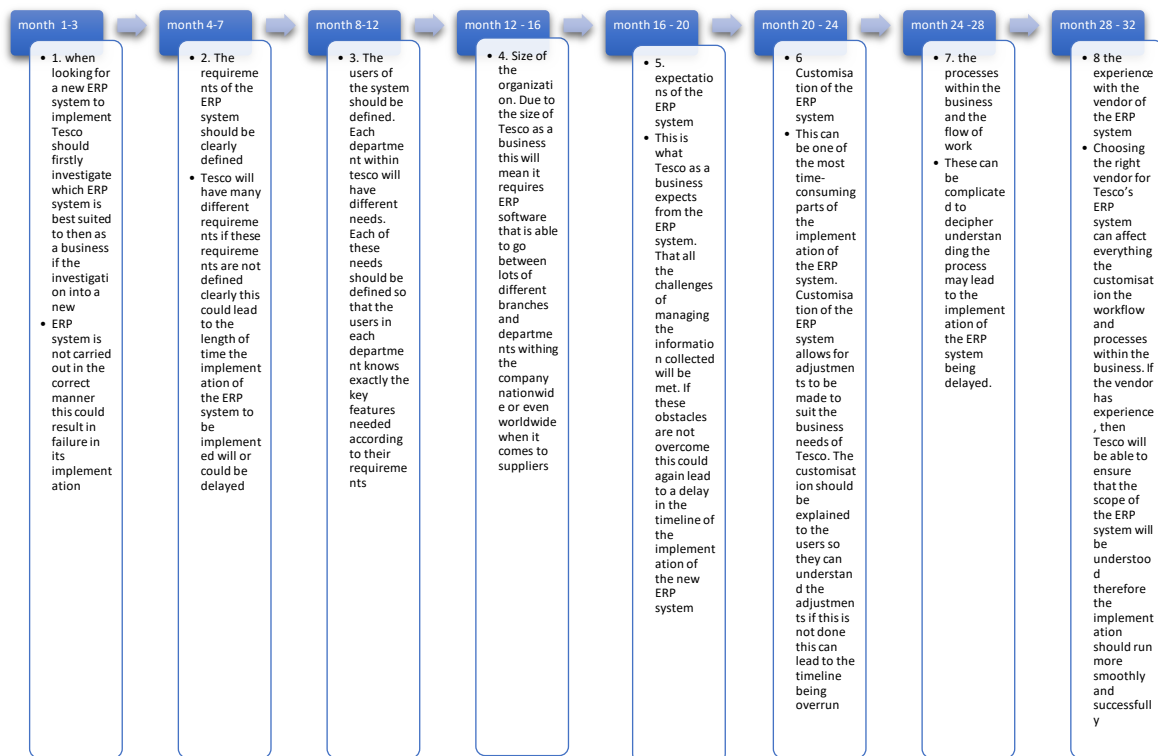
7. the processes within the business and the flow of work

These can be complicated to decipher understanding the process may lead to the implementation of the ERP system being delayed.

8 the experience with the vendor of the ERP system

Choosing the right vendor for Tesco's ERP system can affect everything the customisation the workflow and processes within the business. If the vendor has experience, then Tesco will be able to ensure that the scope of the ERP system will be understood therefore the implementation should run more smoothly and successfully

6 A timeline of the process of implementing a new ERP system



7 Conclusion

Over the course of this report many factors were discussed from purchasing to implementation and understanding of a new ERP system. Although a ERP system can be hugely beneficial to a business such as Tesco its implantation has many factors that quantify its success careful thought should be taken. Investigation into the correct system and the training that is needed to be given to the workforce should be of upmost importance and its rollout within a company should be measured on a regular basis to ensure all the objectives of the ERP implementation are met

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