



CST3310

Strategic Information Systems (Enterprise Project) Management Group HE08

Huber Technology

(Sunday 12th January 2020)

Computer Science Department Faculty of Science & Technology Middlesex University

Andrew Clarke M00523722

Shabbir Ahmed M00615925

Tahmeedur Chowdhury M00621979

Saleeman Saleeman M00624633

Zakariye Hussein M00632969

Masoud Ahmed M00654144

Table of Contents

Table of Figures	2
0: Introduction	3
0.1: Introduction of your consultancy start-up	3
0.2: Presentation of each group member profile	3
0.3: Description of the selected case study	3
1: Strategic Management Principals	5
1.1: Establishment of a robust strategic management process	5
1.2: Conduct of the sectors competitive analysis	6
1.3: Introduction of strategic leadership approach	11
2: Information Systems types	12
2.1: Overview of different types of information systems relevant to the organisations	12
2.2: Discussion of suitable typology for classifying the organisations systems	13
2.3: Description of the organisation information systems function	13
3: Managing IT Projects	14
3.1: Review of the core IT project management practices	14
3.2: Creation of a project management plan	14
3.3: Identification of key work packages	15
4: Systems development models	17
4.1: Review of appropriate systems development models	17
4.2: Selection of the most suitable model for the organisation	18
4.3: Description of how the model will be implemented by the organisation	18
5: Digital business models	20
5.1: Overview of appropriate digital models for the specific sector	20
5.2: Description of an appropriate model that is in place at the organisation	21
5.3: Reflection on how the model is implemented and its impact on the organisation	22
6: Business Information Systems (ERP/CRM/SCM)	23
6.1: Review of the organisation's Business Information Systems	23
6.2: Description of core business operations supported by these systems	23
6.3: Explanation of the infrastructure and resources required for these systems	25
7: Conclusion	26
7.1: Summary of main suggestions for the organisation	26
7.2: Identification of main constraints in applying proposed plans	26
7.3: Reflection on lessons learnt for the members of the start-up	
Appendix A	26
Questions	26

Interview Transcript	27
Appendix B	32
Andrew Clarke M00523722	32
Shabbir Ahmed M00615925	36
Tahmeedur Chowdhury M00621979	39
Saleeman Saleeman M00624633	
Zakariye Hussein M00632969	
Masoud Ahmed M00654144	
Bibliography	54
Table of Figures	
Figure 1 Group Member profiles	
Figure 2 Huber Technology	
Figure 3 The five tasks of strategic management	
igure 4 Porters Five Forces	
Figure 5 Relative Importance of Product and Service	
Figure 6 Porters Five Forces Analysis	
Figure 7 SWOT Analysis	
Figure 8 PESTEL Analysis	
Figure 9 10 Principles of Strategic Leadership	
Figure 10 Major types of systems in organisations	
Figure 12 Project Management Model	
Figure 13 Huber Technology PMP checklist	
Figure 14 Work Breakdown Structure	
Figure 15 waterfall diagram	
Figure 16 iterative model	
Figure 17 spiral model	
Figure 18 implemneting stages	19
Figure 19 E-Commerce transaction models	20
Figure 20 Subscription Digital Business Model	2
Figure 21 On-Demand Digital Business Model	21
Figure 22 Example of Huber Technology's Subscription Digital Business Model	22
The same 22 Holland Tarabara land a same it is a first land a first land of IT to a safe susception	22
Figure 23 Huber Technology's position in the five levels of IT transformation	
Figure 24 Aspects of an ERPFigure 25 Example of a Supply Chain	23

0: Introduction

0.1: Introduction of your consultancy start-up

Huber Technology has contracted us to assist in analysing the company as well as a full systems overview to successfully identify key sectors where Huber Technology may advance in their industry by excelling and accumulate crucial competitive advantage. To gain a better understanding of how Huber Technology runs, we have undergone an interview with Dave Thompson (Engineering & Operations Director) from Huber Technology.

0.2: Presentation of each group member profile

ID	Name	Photo	Position	Report Section
M00523722	Andrew Clarke		Chief Officer	Section 6 Structurer Organiser
M00615925	Shabbir Ahmed	non jour	Human resources Leader	Section 1 Section 7
M00654144	Masoud Ahmed	00	Marketing Leader	Section 0 Section 3
M00632969	Zakariye Hussein	3	Research and Development Leader	Section 5 Transcriber
M00624633	Saleeman Saleeman		Admin Leader	Section 4
M00621979	Mahmudur Chowdhury	9	Finance Leader	Section 2

Figure 1 Group Member profiles

0.3: Description of the selected case study

Huber Group is among the worldwide leading suppliers in the field of wastewater/sludge treatment and process engineering founded in 1834. Huber Technology provides state-of-the-art equipment for municipal and industrial water and wastewater treatment. With more than 175 years of commitment to drinking water and wastewater treatment, HUBER has always been an innovator in this field with a continuous focus on the development of new solutions to conserve one of our most valuable resources.

Huber technology also offers various of different solutions both practically and services. For example, Huber Technology ensures peace of mind by making it a fundamental point that all

machines provided via the company includes long term efficiency. This is both making sure the equipment does what it says it does and that no faulty parts are sold, causing breakdowns and malfunctions. The organisation provides sales, customer support, maintenance calls etc around the clock 24 hours a day, 7 days a week. This therefore helps the organisation build customer loyalty since Huber Technology grantees support with purchasing equipment and support after buying the same product/service. This means operations, functionality and performance for the machines purchased are at highest quality.



Figure 2 Huber Technology

(Huber.de, 2016)

1: Strategic Management Principals

1.1: Establishment of a robust strategic management process

The diagram below shows a suitable robust strategic management process that is appropriate for Huber Technology. The diagram shows five tasks that are required to make documentation and application of the business long term aims and objectives. The first task includes enhancing a strategic vision with a business mission. Huber Technology mission statement is about protecting and enhancing the environment with sustainable wastewater solutions. Task two is about setting objectives for the business, this can range from long term to short term and giving urgency to them. Task 3 is about crafting a strategy to achieve the objectives. These are ideas and plans that will be required to achieve the objectives, in this task they can be changed and enhanced at different times. Task four is about applying and implementing the strategy. In this task, a lot of adjustments and enhancements can be made. Task five is about assessing performance, tracking new expansions and introducing counteractive alterations. This is the important aspect of the five tasks as a lot of enhancements are made at these tasks and then the adjustments will be intruded. This interlinks with task one, two and three. Huber Technology focuses on customer service this can be through product sales or executing project delivery. This is important as it leads to continuous improvement. Huber Technology also focus on quality of equipment.

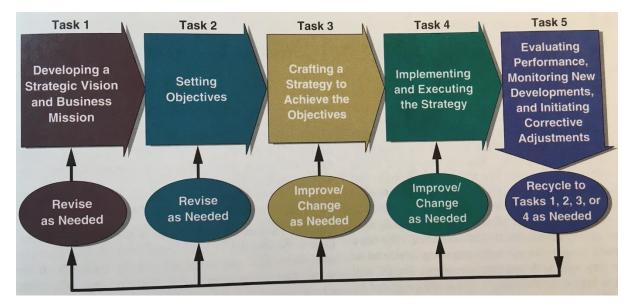


Figure 3 The five tasks of strategic management

(Thompson and Strickland, 2003)

1.2: Conduct of the sectors competitive analysis

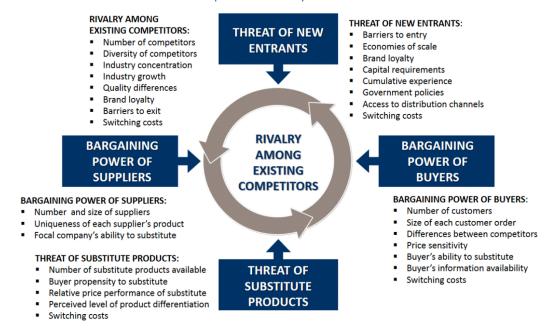
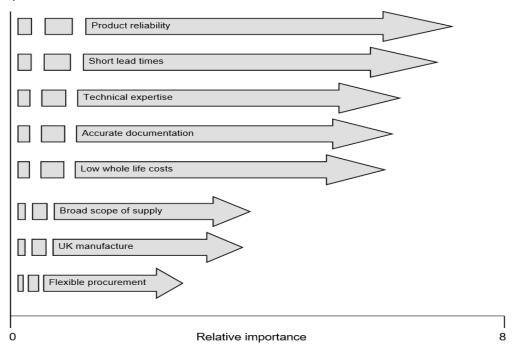


Figure 4 Porters Five Forces

(B2U - Business-to-you.com, 2019)

Huber Technology have several competitors who compete with them in different sections and against different products. Huber try to outperform their competitors in key areas that deem to be most important to their customers. The chart below shows which criteria is deemed to be most important to customers.



Relative importance of product and service performance to Huber Technology's customers. Top five criteria and bottom three criteria shown

Figure 5 Relative Importance of Product and Service

Five Forces	Description	Example in relation to Huber Technology
Threat of new entrants	Any new entrants in this field with bring the market to expand and share however, the gravity of the threat relies on the barriers to enter a specific industry. These barriers can vary. For example, if a customer has a high loyalty for a current brand, that specific customer will remain with that brand only if customer service and price is good for the customer.	The threat of new entrants in the environment/water section can be consider low to medium. It takes a lot of though and strong business strategy to ensure customers to come into their company. Companies like Huber Technology will need different type of qualifications such as access to customer details, distribution channels and others which are very hard to obtain. The current market leaders in this field have built up a large experience and know how to cut costs with their suppliers and even increased service levels.
Bargaining power of suppliers	This force is about assessing the total power and control a company supplier has alongside the potential to increase its prices or even decrease the quality of goods and service. This is very important as any availability of substitute suppliers will determine the supplier power.	The bargaining power of suppliers in the waste management field can be considered medium to low. When looking at the high inputs that waste management companies, it depends on how much products and service the company need which is dependent on customers.
Bargaining power of buyers	This force is described as the marketplace of outputs, this is down the total amount of customers, size of customer order, difference among other businesses. The force especially assesses what extent the customers are able to put the company under pressure as the customers in this field can go to different waste management services and see what prices each service offer.	Bargaining power of buyers in the waste management services in medium to high. Customers in the field can check prices by ringing the companies up directly and find out if there are special discount services available when switching to different products. Brand loyalty doesn't seem to be high, as customers can quickly change their mind if they encounter a bad customer service or even customers friends or family recommending them to check another business.
Threat of substitute products	The current products outside of the realm of the known product boundaries rises the tendency of customers to switch to alternate. Customers might be hoping to switch from one service to another if they price is right for them. This can depend on the customer finance status and if they well at managing their budgets.	In terms of the waste management industry, the main needs of a customer are the location and travel. If there is a waste management service near a customer, then this shouldn't be a problem however, if they need to travel for some time, this might cause problems and deter customers from going. The threat of substitutes in the waste management industry can be at least low to medium.

Rivalry among existing competitors The last force of the Porters five forces investigates how rigours the existing competition is in the marketplace. This depends on the total amount of current competitors and what each competitor can do in their field for their customers. Rivalry is high when there are a lot of competition going around. One way is when the industry is growing slowly, and the competitors might offer low cost for switching to them. If the rivalry is high then competitors will engage in price wars, which might cause problems in a business bottom line.

The waste management services in the UK are large as there is many companies small to medium offering different types of services and the prices are vary all the time. The switching cost for the customers can be small as there isn't major business known to customers, yet which enables all business to play for the bigger role.

Figure 6 Porters Five Forces Analysis

S	W	0	T
Strengths	Weakness	Opportunities	Threats
Huber Technology concentres on the services that customer believes that they require and want more, this in effect separates Huber from other Waste management company as other companies care slightly more about profits and revenues but Huber technology puts their customers in the centre of their business.	The main weakness of Huber Technology is that the brand isn't strong enough, this means that the company isn't getting the public and brand awareness which is disappointing. The has a connection with other waste management company who have a strong brand awareness. There are companies	There are different types of opportunities for Huber Technology to grasp. One is that in their head office, there are less competitors in the area which is good for the company. The company has international business, and this means they are more or less likely to increase their business in other country which	There are many ongoing threats in this field as year by year there are many new companies are starting up and gaining different types of advantages such as, pulling a PR stunt. This can be a celebrity endorsing their service. Another real threat is that customers might change their attitudes towards the company,
The company has professional and . skilled staff that knows the business and field really well.	such as Veolia UK, Biffa Group, Viridor and many others that are in the Top UK companies for waste management	means more added profits and revenues. Another major opportunity is gaining press/media coverage of the company, this means by entering into competition shows and winning awards and even increasing social media platforms by having a dedicated social media team to build and increase brand awareness.	this can mean that loyal customers might expect special discount services. Finally, as UK is leaving the EU, there will be new laws and old laws scrapped. It will be important to see how the enorivnmental sector will be impacted and if this will be positive or negative for Huber Technology.

Р	Ε	S	T	E	L
Political	Economic	Social	Technological	Environmental	Legal
This is an important factor that consist of governmental influences that affects how Huber Technology runs day to day. There are government policy that Huber Technology needs to adhere to at all times. Huber Technology needs to understand pricing regulations which means to focus on pricing regulatory mechanism for industrial goods. This aspect is also important for taxation which is the tax rates and the incentives for obtaining bonces or even meeting yearly targets. Huber Technology needs to know they should follow the wage	The Macro environment factors for examples, inflation rates, saving rate, interest rate, foreign exchange rate and the economic cycle regulate the aggregate demand and investment in an economy. This is very important for Huber technology to understand as when they do they can forecast the growth of trajectory. The waste management company can find out the company growth rate, customer spending. And more to increase profits and revenues. It is important to understand this factor as if there was a rise in inflation, Huber technology will need to	This is also known as the socio-cultural factors, some include population growth, career attitudes, customer buying trends, demographics, and many more. These are factors that are important to Huber Technology. Huber Technology prides itself on being informal and relaxed company with simple hierarchy structure. It is important that the company has strong and right ethic and outlook on health and environment as these two are important to the company and even the customer	This factor has a strong impact on the company, the company prides itself on growing and enhancing technologies. The company produces many goods and offers service tailored to the customer needs. They have many emerging technologies that is essential for the company to increase and gain profits. Huber Technology should do a analysis on the technological enhancements, impact on cost structure and technology impact on product offering. These will be key to understand how technological can affect the company and in what way.	Enorivnmental is a important factor for Huber Technology as their business is evolved around this sector and protecting against harmful actions and movements that might hurt the business. The business had evaluated the enorivnmental standards such as the weather, climate change, laws protecting environment pollution, recycling and waste management in Industrial Goods section before going into this market, and the company fully comply with these regulations and standards.	The legal factors considered both require internal and external consideration. The government laws affect how Huber runes, as there are different types of laws such as employee rights and environment laws that has an impact on the company. If the company doesn't follow and review different facots from health and safety, product safety, advertising standards then the business can lead to issues such as penalty and even business closure.

la sialatia a	to an an an all at the		
legislation	increase their		
which is	supply price,		
understanding	as this will		
about the	cause a		
minimum	possible loss		
wage and	of sales to		
overtime, as	their		
some	customers.		
employees			
might work			
overtime and			
they should be			
paid for this.			
There is also			
political laws			
like work week			
regulations in			
waste			
management.			

Figure 8 PESTEL Analysis

1.3: Introduction of strategic leadership approach

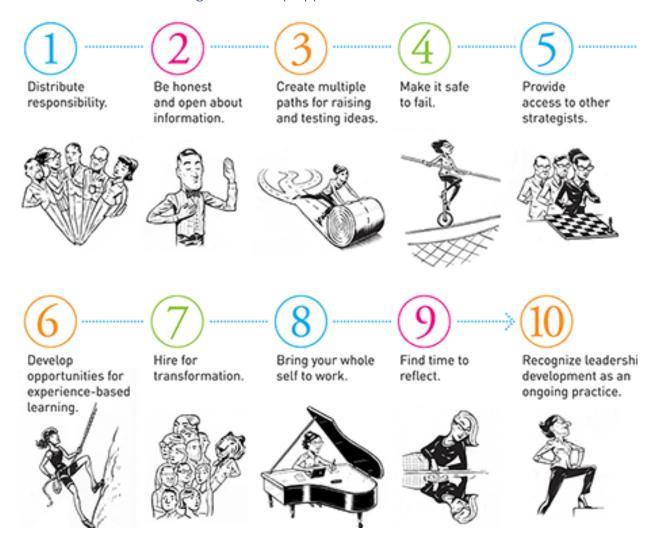


Figure 9 10 Principles of Strategic Leadership

(Thompson and Strickland, 2003)

The diagram above, shows ten principals of strategic leadership. It is important that leaders have a strategic mind and leadership principals especially in this day and age as more and more business are adjusting to the needs of customers and the environment, they are in. The ten principals above can expose Huber Technology management team to attract, develop and retain their system. The principles show a mixture of business systems and specific competences. The culture that Huber Technology has obtained is a fairly flat organisation according to the CEO, it is an informal business culture. The core values are defined as teamwork. The four main aspect are, Trust, Quality, Integrity and Respect. These values guide the way employees interact with each other, customers and even suppliers.

2: Information Systems types

2.1: Overview of different types of information systems relevant to the organisations

An Information System is a group of components which works together to be able to collect, process and store information to make as well as support the decision made.

An MIS which is knowns as Management Information Systems is a type of information system. A Management Information System is an upgraded system that Huber Technology can use to handle its information system. This is done on a database system where reports are produced which allows managers to be provided with feedback on the company's overall performance which enables them to reassess and make amendments. A system like this can make comparisons with actual results with the previous year's results. There are several benefits of using a MIS, one of the benefits are adding value to existing products. Another advantage is that it helps managers to make better decisions. One other advantage of using a MIS is planning effective strategies.

Another type of information system Huber Technology can use is Transaction processing systems. This is a system which helps the company in performing daily operations. Transaction is an activity that can impact the organisation such as, orders, record keeping.

One other type of information system that Huber Technology can use is executing support system. This is a computer-based information system which is an extension of MIS as in it supports the organisation in making better decision at the highest level. There are many information's systems that Huber Technology currently use which are enterprise resource planning, customer relationship management, sales configuration tools, document management and a product management data system. Furthermore, as of 2018 Huber technology runs an IT platform.(Bhasin, 2019)

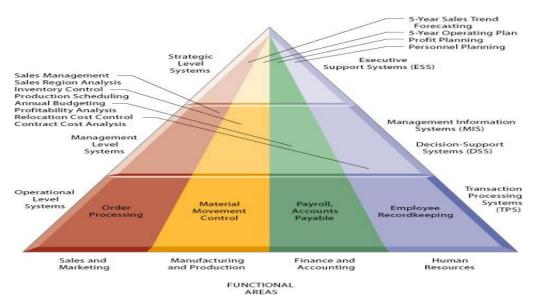


Figure 10 Major types of systems in organisations

(Paginas.fe.up.pt, 2019)

2.2: Discussion of suitable typology for classifying the organisations systems

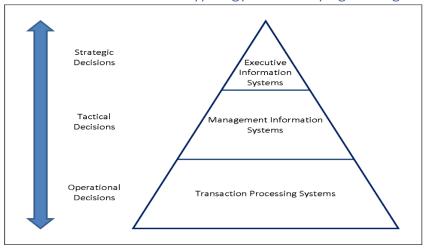


Figure 11 IS typology based on types of decision

(Chris-kimble.com, 2019)

As you can see the picture above shows a suitable typology for classifying the organisations systems. The picture above illustrates the employees that handle certain levels of departments make certain decisions for the organisation. At the top of the pyramid it says the executive information systems meaning whoever in the organisation that manages the executive information systems will be making strategic decisions for the company and as this is at the top it shows that this is the highest level of decision meaning this is the most important. Below that is the Management Information Systems which is also essential to the organisation as this is the system a company uses which enables them to get feedback and this and the employees that handle this will make tactical decisions. Lastly, the pyramid shows the transaction processing system and the people handling it will make the operational decisions for the company. Huber Technology should use this pyramid model as it will enable them to make better decisions.

2.3: Description of the organisation information systems function

There are different types of information system functions that Huber Technology can use to make better and informed choices about their company. The first system is TPS which is Transaction process system which serves the individuals in the operational level of an organisation, this can be the staff who are in the reception. The second system is called Knowledge work systems which is mainly used by the technical staff as model functions. This will be technicians within the company. The third system is office automation system OAS belongs to individual's knowledge of the company department. The system supports the members in the processing of personal and business data and information. DSS is the fourth type of system and is called Decision-Support system which supports the main strategic management staff who are known as middle management team. (Theartofservice.com, 2019)

3: Managing IT Projects

3.1: Review of the core IT project management practices

Projects are temporary set of tasks with a beginning and an end with set of resources ending with a desired result. These projects are unique, and they aren't an activity that are repeated, it is usually conducted to carry out a singular goal and all operations are usually designed to help accomplish this goal. Projects consist of different teams working together to accomplish one goal. An example of projects is development of software to improve the business process, a construction of the building or a bridge. The refurbishing of city.

It is fundamental that a clear line of communication is established within this hierarchy management level as each level within this hierarchy will govern/execute a specific set task of the project. Thus, being vital that communication is ran in both up the chain to Senior management and crucial back down the chain to Operational management.



Figure 12 Project Management Model

(Eby, 2018)

3.2: Creation of a project management plan

It is essential for an organisation to implement the use of project management plan. This primarily illustrates key information relating to the project, breaking it down and simplifying the set project enabling Huber Technology to complete this project. Ultimately, acting like a checklist for Huber Technology.

The project also requires the right qualifications, teams and responsibility to be assigned to a specific role to therefore complete the set project effectively and successful without any fault or delay so both time and money is effectively used.

Huber Technology Project Management Plan

Sections	Explanation
Executive	Essentially a summary, laying down the
Summary/Introduction	foundation of the project, what problem
	will you solve and what end outcome
	would you like to achieve.
Meeting with	Ensuring the Stakeholders are onboard as
Stakeholders	they are too invested in progression and

	end result of the project ahead. To acknowledge their expectations for the project as their requirements need to be reviewed.
Gather specifications and	Establishing requirements and
requirements	specifications to understand the purpose
·	of the project. Project break down and
	work breakdown structure must be
	identified and created.
Resource Baseline Plan	Effectively distributing work among team
Resource Basenne i ian	members. Ensuring team members have
	the right skill to tackle the task. Breaking
	down a project to into smaller task to
	tackle. Maybe hiring an external
	specialist to complete a task.
Budget Plan	Budget is vital to a project to ensure that
Buuget Flaii	the idea is within the budget range.
	Fundamental that profit out weights
	cost. Includes direct costs, labour,
	, ,
	hardware, software and research related
Croating cabadula	Costs.
Creating schedule	To ensure a project is completed a
	schedule is required to assess what
	needs completing creating a timeline for
	the project. Task will be estimated in
	order to figure out how long the entire
Camananiantia Blas	project will take.
Communication Plan	A communication system must be
	determined here. Fundamental an
	effective communication line is
	established throughout this project to
	ensure tasks are being completed with
	perfection and on time.
Progression monitoring	Primarily keeping a track on deadlines
	and overall progression of a project.
	Ensuring progression is made and
	time/resources isn't put to wasted.
Approval and	Gaining approval from stakeholders and
stakeholder	key managements. Establishes a green
Management	light for the project to begin.

Figure 13 Huber Technology PMP checklist

3.3: Identification of key work packages

Huber Technology doesn't a formal work package nor subscribe to any methodology in order to carry out an objective or project. However, like any organisation Huber Technology does break down large projects into smaller work packages in order to efficiently go through the project piece by piece, this is also known as WBS. Huber Technology can keep a track on progress, cost and be able to thoroughly manage the project to ensure that the project is completed successfully and minimise any errors and overall deliver a great service to their clients.

This is primarily done by cancelling out problematic issues as they are not tackling the project, however broken down into smaller pieces which is easily manageable and monitored. If any errors are however met, they can fix the error within that stage instead of starting completely from scratch which does push back deadlines which isn't beneficial when producing a service.

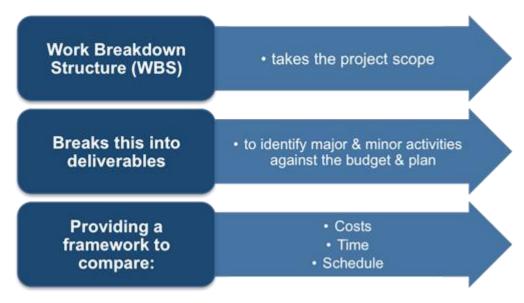


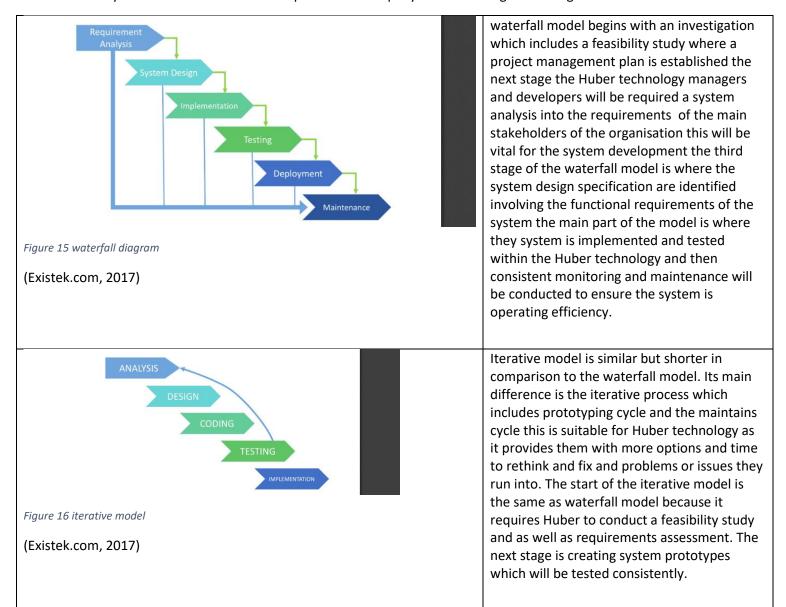
Figure 14 Work Breakdown Structure

(Free-management-ebooks.com, 2019)

4: Systems development models

4.1: Review of appropriate systems development models

Huber technology uses different kind of models like waterfall model, iterative model, spiral model Waterfall model is a cascade SDCL model it is suitable for Huber Technology because it's clear and easy to understand for the developers of the company when deciding which stage to execute.



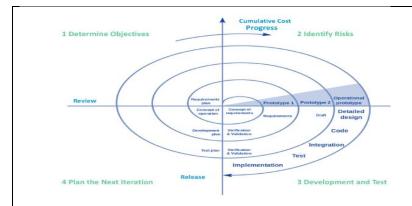


Figure 17 spiral model

(Existek.com, 2017)

The spiral software development model includes four sections and will be suitable for Huber Technology due to its flexibility it allows the developers of Huber to revert to a previous stage if required. The spiral model will affect the software development process as the project requirements risks solutions development and testing will need to be successful for the project to work it gives room for trial and error which makes It more reasonable and feasible for Huber as well as helping in making and supporting the company with strategic decision making the advantages with this model is the increased possibility of discovering the potential risks of the software much earlier allowing the developers to find a solution earlier to remove bugs from the system before its released.

4.2: Selection of the most suitable model for the organisation

The most suitable system development model is waterfall model. This is because it suits and will be applied without any issues when Huber conduct there development also its simple for the developers to understand and follow. Huber technology will be able to apply this model firstly through understanding the requirements that the users want from this system and therefore establish appropriate solutions. this solution for Huber will be to develop a data management system for the workers. It will be important for Huber to consistently edit and revise the user requirements during the prototyping cycle to ensure the system fully meets the end user requirements. The final section after the system has been implemented Huber Technology, who would have employed dedicated technicians who will be available to conduct system maintains on a regular basis as well as fix any problems that may appear.

4.3: Description of how the model will be implemented by the organisation

The waterfall model will be implemented through a set of steps beginning with hardware and software acquisition. Most importantly Huber Technology will have to prepare their users and managers for the new system which may involve personal training and hiring new staff who understand how the system works. Before the system is installed and tested the Huber need to be physically prepared and as well as having previous data backed up or transferred to the new system.

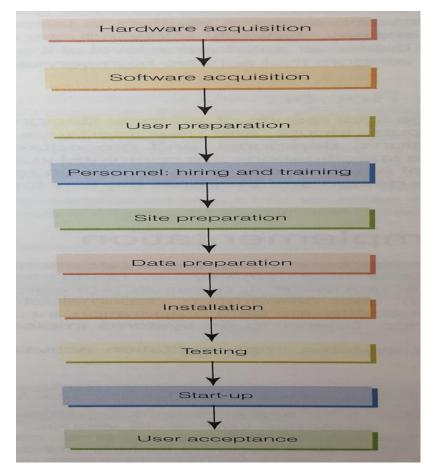


Figure 18 implemneting stages

Huber technology have created their own model based on their company. Huber technology's Implementation of a far reaching and transformational IT strategy needs to be aligned with a process for implementing radical organisational change. When Huber technology get it right, their IT implementation encompasses the following. An implementation plan: Define requirements, Design the system, Verify the test system, Train key users, migrate data, Go-live. Huber technology will be doing stakeholder analysis. Huber technology also trains employees specifically in implementing their own system model to the company.

5: Digital business models

There are many types of business models present in organisations. These business models in most cases determine the success of the business. A well put together business model will allow you to determine elements such as the concept of your business. What problems is your business providing a solution for and to whom. How will you allow you customers to feel value, it may also help figure out how your business will stay ahead of competitors. All these factor emphasis business models value within a company.

For Huber a B2B business model may be relevant as some of Huber's clients are businesses this business model would work as advantage as it is designed for business where exchange of goods and services take place between 2 or more organisations. So, since Huber supply high tech water processing machinery this b2b may be relevant to them.

B2C type business models can also be utilised by Huber technology. The reason for this is because Huber has transactions between their company and individual consumers therefore B2C would also be relevant to them as they sell products and services to consumers.

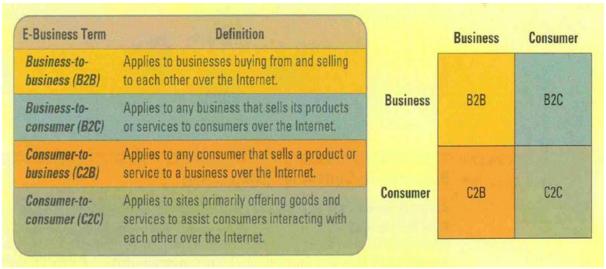


Figure 19 E-Commerce transaction models

(Baltzan and Phillips, 2018)

5.1: Overview of appropriate digital models for the specific sector

An example of a commonly used digital business model would be the subscription business model. This model became commonly used during the time where the internet became part of people's day-to-day life. Before this the subscription model wasn't really as prevalent as it is now. (*Brand, 2018*). It allows companies to take periodical payments from their customer and provide ongoing services. This digital business model grew in popularity because of its convenience not only to the customer but also the company.

Subscription



Business Model Toolbox

Figure 20 Subscription Digital Business Model

Another example of a digital business model is the On-Demand model. This model displays how much business has changed since the digital transformation. This model allows users to pay a small fee they pay when they require a service they cannot or prefer not to perform themselves. The ondemand model allows the customer to relieve the service required "on demand" thus the name of the business model. This is a new business model that is revolutionising business. Ecommerce business are using this module to take advantage of the technology available and grow their revenue to limits that were deemed unreachable 20 years ago.



Figure 21 On-Demand Digital Business Model

5.2: Description of an appropriate model that is in place at the organisation

Huber is currently does not have a business model in place as their IT/IS strategies aim primarily on internal integration using company wide networks and business process redesign through the roll out of various IS platforms working on a business model that is currently in place in an organisation. However Huber is planning on building a subscription business model, which is in place in many organisations, Huber aims to provides a service that allows customer to periodically pay a fee for Huber service which includes installing equipment and machinery and monitoring it through 4G technology and maintaining it for along as the client holds a subscription. Huber allows their clients to fulfil their demand on the foundation of having instant access to their required services.

This 4G network service allows for Huber to provide optimized plant maintenance.

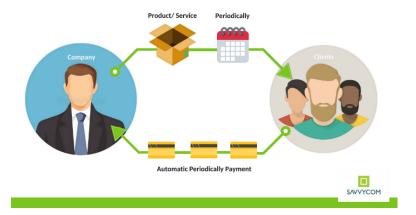


Figure 22 Example of Huber Technology's Subscription Digital Business Model

5.3: Reflection on how the model is implemented and its impact on the organisation

It is clear that digital technology is heavily impacting the way business operate. It is allowing Huber to take a whole different approach into the way that they perform and as a result it impacts organisation by increasing customers, revenue leaves a gap between them and the competitors.

The subscription business model is implemented by allowing customers to get the services that they require without any hassle as Huber have taken advantage of the new technology that's available and used it to improve customer satisfaction this impacts the company as Huber become very efficient with what they do. This businesses plan will lead to better reviews from customers which will attract more customers and help Huber grow. The new generation technology allowing Huber to have direct connection to monitor the status of the machinery they provide will allow for prompt troubleshooting if they are to occur. Furthermore, this will allow them to anticipate issues before they occur.

This business model brings about many advantages to the organisation using it, this can involve not only employee satisfaction but also customer satisfaction this can work to increase the number of customers using your service and increase revenue. Furthermore, this business model makes unlimited business opportunities achievable Also having an on-demand service will allow cashless payment methods to be established further improving security and increasing transparency within the organisation.

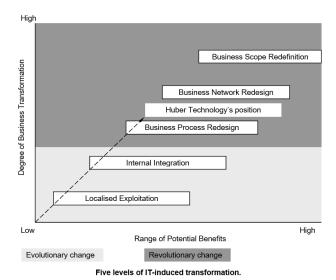


Figure 23 Huber Technology's position in the five levels of IT transformation

6: Business Information Systems (ERP/CRM/SCM)

6.1: Review of the organisation's Business Information Systems

Huber technology uses a program called IFS, IFS is a cloud-based enterprise resource planning (ERP) software that integrates data and processes along with offering various modules such as supply chain management (SCM). Huber technology uses this system to assist with project management, sales, supply chain management and customer relationship management.

ERP's save the organisation money over time due to streamlining processes, while also providing a unified system that reduces IT costs such as training. ERP's enable greater vision into business areas such as inventory, ERP's also enables better reporting and planning. However, ERP's can have a large upfront sunk cost but in the case of Huber this is mitigated due to the usage of the outsourced software IFS. The diagram below shows the aspects that make up the ERP system.



Figure 24 Aspects of an ERP

(Business Jargons, 2019)

6.2: Description of core business operations supported by these systems

Huber technology uses the IFS system to track its purchases so as to maintain stock levels such that projects aren't compromised from lack of resources but also to prevent capital from being tied up in stock unnecessarily. This is done to reduce the stock holding administration costs such as storage charges (rent, electricity) or warehouse manpower whilst unaffecting operations. This process allows for warehouse space to be maximised which will reduce the need for expansion thus reducing expenditure while continuing daily operations. The diagram below is an example of a supply chain and shows the necessity for a SCM system due to the supply chains complexity.

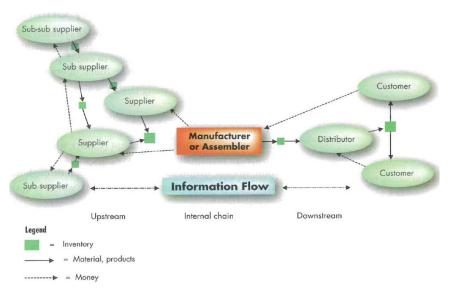


Figure 25 Example of a Supply Chain

(Turban et al., 2009)

IFS is also used to manage customer relations, this is done by identifying project delays in the supply chain so that personnel can contact the supplier and request a faster delivery time, Huber also has a stock buffer to help prevent delays. Huber technology does this by asking the suppler to prioritising delayed projects, searching for a different supplier of the same delayed part. In some cases the delayed part could be delivered to the site itself to meet up with the engineers and in the event that a delayed part causes the project to become delayed Huber technology would negotiate a discount with its supplier to make up for the lost revenue due to the supplier. If a project were to become delayed in most cases there is a clause in the contracts that would require a liquidated damages payment, if this happened it would risk affecting the relationship with the suppliers and may even result in replacing the supplier. The diagram below shows the differences between a marketing system and a CRM.

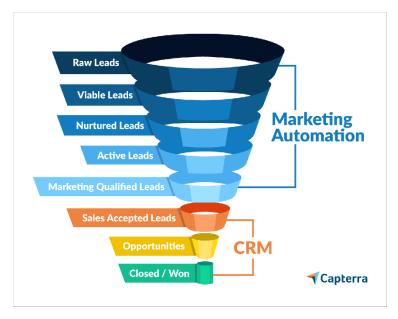


Figure 26 Funnel diagram showing the interaction of a CRM with traditional marketing systems

(Dingeldein, 2019)

6.3: Explanation of the infrastructure and resources required for these systems

The IFS system can be used on any computer and therefore is easily accessible however it is a specialised system that has been outsourced, this means that the personnel required to use the software must undergo training. Huber technology is fortunate in this situation because they are able to send their personnel to their parent company in Germany for training which reduces costs because training is done in house. The IFS software is outsourced and therefore the adaptability and personalisation are non-existent, in order for there to be a change in the software then the IFS company must update the software which will cause issues with time management that may affect business operations for Huber. The cost to integrate IFS is cheaper than the creation and integration of an in-house ERP, this allows Huber to save money on its ERP and SCM.

7: Conclusion

7.1: Summary of main suggestions for the organisation

In this section, all members of the team have discussed in detail about their sections and what type of models and area of work they will be using for Huber Technology. All members recognise which area they need to work on and represent.

7.2: Identification of main constraints in applying proposed plans

The main constraint for applying in different proposed plans varies from time managing to resources. It is important all work completed are conducted in a timely manner and members avoid not completing the work on time. The more delay the more confusion other members will face as some of these sections are interlinked.

7.3: Reflection on lessons learnt for the members of the start-up

Section 0 shows a clear detailed response from member of outlining the goals and objective of the project. Each team member has been assigned a department to control and lead. The background of Huber Technology is discussed. Section one is about the five tasks of ensuring a set of robust strategic management principals are mentioned and how Huber technology will ensure it remains in competition with other competitors. In this section, there is a lot ten ways of how Huber technology management team can think and act more strategic when making difficult tasks. Section two displays detailed response of the different types of information systems that is useful for Huber Technology and which one to use. The system MIS is mentioned and a hierarchy levels are shown. The description of organisations systems functions and how they use information systems. Section three is about what does project management practice means and the main work packages which shows the project deliverables and lists which one is important. Section four is about a review of suitable digital models is explained such as Waterfall Model, Spiral Model and others. The most suitable model to Huber Technology is Waterfall Model. In section 5 there is a detailed mention about the different types of digital business model which is On-Demand and subscription. The models are explained, and on-demand is chosen for the case study where the benefits are highlighted. In section 6, there are different types of Business information systems such as ERP/CRM/SCM. The section shows how the business BIS affects its business choices and what is required for the BIS to function on its software, hardware, network and management structure.

Appendix A

Questions

Do you mind being recorded?

Could we use your company name, or would you prefer being named company X?

Would you like a transcript copy of the interview?

What processes does your business use to form its strategy?

what type of effect does this have in your business?

How do you maintain competitive advantage over your competitors?

What are the leadership principals in your company? How important is managerial culture in your company?

What are the main information systems that fit into your companies' corporate structure?

How does your company make use of the data gained from information systems?

What method do you use to organize and identify the key objectives of a project?

How do you create a plan that accomplishes the given objectives?

Is there a specific project management methodology that your company subscribes too such as agile, scrum or Kanban?

Which systems development models does the company use for example in development systems like waterfall models?

How do they implement that model in the system?

How important is the digital branch within the company?

How do customers interact with the digital business model?

Does the digital business model provide a revenue source, or does it enhance existing revenue sources?

Does your company use a specific IT system to manage the supply chain?

How do you deal with time disruptions in the supply chain?

How does the company ensure customer retention using customer relationship management?

Interview Transcript

Transcript starts

Dave Thompson "Hi Dave Thompson speaking"

Andrew "Hello It's Andrew"

Dave Thompson "Yeah, hi there Andrew I was expecting your call"

Andrew "Are you free right now?"

Dave Thompson "Yeah that's fine "

Andrew "First off then with just administration questions, do you mind being recorded?"

Dave Thompson "Nope that's fine "

Andrew "okay and would you prefer if we anonymised the company in our report?

Dave Thompson "I don't mind, I can't imagine your report would be read by our competitors "

Andrew "okay, would you like to receive a transcript"

Dave Thompson "not unless you want to send it to me no, I'm happy with what we are doing, and what you're recording for your project so it's fine"

Andrew "okay, that's perfect then, less work for us"

Dave Thompson "yeah keep it simple I know what it's like doing this type of thing"

Andrew "okay then I'll start off with our main questions and leave you to my colleagues "

Shabbir "Hi Dave, how are you?"

Dave Thompson "I'm fine thank you, you?"

Shabbir "Yeah I'm good, I've got some questions I'd like to ask you is that okay?"

Dave Thompson "Yeah that's fine "

Shabbir "What process does your business use to form a strategy?"

Dave Thompson "Well I guess it's based on process and sort of market reconnaissance looking at what's going on in the marketplace then trying to align that with our resources and capabilities, seeing opportunities out there and erm, making decisions about which direction you want to take the business in and what adjustments we need to make to the organisations structure, the personnel the procedures, that's the sort of process we go through to hone our strategy "

Shabbir "another question is, what type of effect does this have on the company?"

Dave Thompson "On an annual basis we sort of reviewing our existing strategy so that leads to incremental change to what we do, but occasionally, or a longer period so every 5 years, we have a more systematic review of our business strategy and then instead of just incremental change it would be more erm, have a more significant impact on the business, so more transformational change to the way we work and the way we set up and the way we do business"

Shabbir "yep that's fine, and how do you maintain competitive advantage over your competitors"

Dave Thompson "erm, we tried to understand what's important to our customers try to gauge our own performance in that criteria, and then try to benchmark ourselves against our competitors so that we don't necessarily try to be better than our competitors in every aspect of what they do but we tend to focus of the things that are most important to our customers and make sure were best and most competitive in those areas "

Shabbir "what are the leadership principles in your company?"

Dave Thompson "I think I would say our leadership principles, that's a good question I need to think about that for a moment."

Shabbir "that's fine"

Dave Thompson "I think it's about in terms of our staff it's about empowering them getting the best out of them looking at people as an asset to the business not just a means of production, but a real asset and I think that's reflected on our organisational culture and our core values of trust, quality, integrity and respect we find that embodies our leadership principles "

Shabbir "that's fine, I'm going to past it over to my colleague who's going to ask you more questions, is that okay?"

Dave Thompson "Yes sure"

Tahmeedur "hi Dave this is Tahmeedur"

Dave Thompson "Hi"

Tahmeedur "I would like to ask more questions, what information systems that your company uses?"

Dave Thompson "So, like our ERP systems that sort of thing?"

Tahmeedur "yes"

Dave Thompson "so well we have an ERP system, we have a CRM system, we have sales configuration tool, erm, we use share point as a document management system, and we have a product data management system as well.

Tahmeedur "secondly how does your company make use of the data gained from information systems?"

Dave Thompson "Erm, well we use it to inform some of the decisions we make in terms of what activities and are profitable, which activities could be more profitable and where we need to look at saving cost, we look at things like level of inquiries from our customers and what our hit rate is for every quote, so how many quotes we do for every order and then look at how we might maybe adapt ourselves and our marketing strategy to improve our hit rate, so those are some examples"

Tahmeedur "thank you I will now pass it on to my next colleague"

Masoud "Hi David I've got a few questions for you, erm, what methods do you use to identify key objectives of the project?"

Dave Thompson "So what particular projects are we talking about IT or IS projects"

Masoud "any project that comes to mind"

Dave Thompson "well if we are talking about quite a large scale project, something like an IT project erm, we'd probably looking at the high level business projects that we need to dovetail with so we'd be looking at the business strategy and define the objectives of the project if its looking at a erm an IT project we be looking at well what's the business strategy and what are the business objectives erm how does that impact our business processes, what sort of IT systems do we need to facilitate those business processes then we'd be looking at what IT systems or IS systems, we would need to facilitate that y looking at the market place, that's the sort of process wed be going through in terms of aligning erm our IT or IS strategy with our overall strategy"

Masoud "Alright, how would you create a plan that accomplishes the given objectives?"

Dave Thompson "erm by defining the scope of the project, so we can measure at the end that we delivered against all those objectives."

Masoud "Lastly I'd like to ask is there a specific project management methodology that the company subscribes to such as, agile scrum or kanban"

Dave Thompson: "No, we don't follow a formal project management system like that"

Masoud "okay thank you so much I'm going to pass you onto my colleague now"

Dave Thompson "Okay"

Saleeman "Hi David I'd like to ask you some questions please"

Dave Thomson "okay"

Saleeman "which system models does your company use, for example systems like the waterfall model"

Dave Thompson "we don't use anything specifically like that, so when you say a system model is this a system implementation

Saleeman "yes"

Dave Thompson "so we've come up with an implementation plan that will define requirements erm, well design the system, test and verify the system before implementation, so we'll have an implementation plan and as part of a big project in the company well do some stakeholder analysis, to make sure we get a buy in from the people that will be using the system erm so well have a changed management strategy where we implement a project that will have a significant impact on the business erm that the way we would work we don't have any models over than that."

Saleeman "thank you very much David ill pass you to my colleague"

Zak "Hi David my names Zak I've got a few questions for you here"

David "yep"

Zak" The first question is how important is your digital branch within the company?"

David Thompson "Digital branch? Can you explain what a digital branch is please?"

Zak "so the digital side of the company, so services you provide digitally to you customers"

David Thompson "So we don't necessarily provide digital services erm, to our customers, in terms of our information systems and our IT strategy, a lot of what we do is about just being competitive, erm and being able to do daily business rather than focus on competitive advantage were not doing anything business transformation with our it, it's just erm about expediting business efficiently, there are some things we plan to do in which our customers, all the equipment we supply and install in the water industry that's the industry that we are involved in, were we actually will monitor all the equipment that we install so that we've actually got wireless telemetry on all those machines and we advise the client when maintenance is due or if the machines are operating correctly. So, we are planning to take that type of digital approach."

Zak "would you like to make the digital aspect a revenue source"

Dave Thompson "yes, so what we are doing is, we might supply a machines to a water company for processing their waste, and it might be a one off transaction, so we sell the machine for £50,000, but instead of selling a machine we want to change it so that we are selling them a service, wed say if you pay us £500 a month for 10 years not only will we supply your machines we will guarantee its operating correctly, well come and service it when it needs servicing because of the data we capturing with the wireless telemetry and if the machine breaks down we'll repair it, if the machine fails catastrophically we will replace it. So, we are trying to move the business from equipment supply to provision of a service, and to do that we need to look at how we use our IT capabilities to change the business in that way."

Zak "Alright, thank you ill pass you on to my colleague for the final questions."

Andrew "Hello again Dave"

David Thompson "Hi"

Andrew "just some final questions for you, does your company use a specific, IT system to manage their supply chain?"

Dave Thompson "We don't have a system that's integrated with our supply chain we use our ERP system which looks at material using the MRP system for requirements from projects and for manufacturing activities, so erm in terms of that our system generates supplier demands, but our supply chain is not integrated into our ERP system so well still working, so well generate a service order from our ERP system and still send that to our supplier so that way we're not fully integrated with our supply chain"

Andrew "okay so you use your ERP system as a stock app and then take the information from the ERP to create a... "

Dave Thompson "yep so the ERP system is managing all our internal processes and looking at all our orders plans deliveries looking at resource requirements so in terms of man power whether its site work or manufacturing activities or materials are required to facilitate the build of machines they all come up with purchase demands that we'll then send out to suppliers but they're not looking directly into our ERP system like I know some companies full intergrade their supply chain into their ERP systems without actually sending purchase orders the actual supplier is looking into the system to see what demands there are. We're not using it to that extent

Andrew "How will you deal with time disruptions in the supply chain?"

Dave Thompson "I guess historically by having safety stock, so we are looking to use and MRP system so we are precuring the materials we need but we are having a safety stock that we will review to sort of make sure we're buffered from erm any delays in supply."

Andrew "And then how do you insure customer retention? "

Dave Thompson "by first and foremost offering the quality of product and service that we think that they are looking for so even if we maybe get the costing of a project wrong it won't impact on the quality of the service that we will deliver to get the next order from the client, so first and foremost is quality, then the integrity of the business, that we rely on to get future business"

Andrew "Okay, your answers have been very useful Dave, thank you for your time"

David Thompson "That's okay, I'm pleased to have been able to help you"

Andrew "Thank you very much you've been very helpful, the diagrams you've provided were very useful."

David Thompson "that's okay"

Andrew "I don't want to take up a lot of your time so thank you for this Dave"

David "It's okay, cheers, bye"

** Transcript Ends**

Appendix B

Andrew Clarke M00523722

Learning style - VARK

Visual: 7.
Aural: 11.
Read write: 6.
Kinaesthetic: 11.

This shows that I am an Aural and Kinaesthetic learner, this means that I learn best from talking through problems, asking questions and engaging in debates or by bring physicality into the problem whether this is by using real world examples, past experiences and demonstrations. I find that this describes my learning style very well because I do find it best to discuss and debate about issues in order to create the greatest impact on my learning, also I find that relating subjects to real world examples helps to visualise the information being learned.

Personality type - MBTI

e: 3.

i: 7.

s: 18.

n: 2.

t: 18.

f: 2.

j: 15.

p: 5.

This shows that I have an ISTJ personality type which means I show characteristics such as being "dependable and systematic, ISTJ types enjoy working within clear systems and processes. They tend to be traditional, task-oriented and decisive." This is a true description of myself because I find being task-oriented important and having the situation being clear critical.

Teamwork approach - PAEI

Producer: 15.
Administrator: 16.
Entrepreneur: 15.
Integrator: 9.

This states that I am primarily an administrator and rarely an integrator which means that I focus on how tasks are completed. With an interest in the rules and policies that help the team function, while being highly analytical, concentrating on ensuring that people follow procedures correctly. Often taking a slow, structured approach to problem solving and decision making. However, I don't excel at bringing people together and maintaining harmony within a group. This is very similar to my teamwork style in that I am focused on structure and that I rarely maintain or provide harmony within group settings, I feel that I perform best when I have the power of leadership without the communicational responsibilities that follow.

Team role - Belbin

Implementer: 16. Coordinator: 6. Shaper: 22. Plant: 5.

Resource investigator: 4. Monitor evaluator: 7.

Team worker: 2. Complete finisher: 8

Shapers are dynamic and highly-motivated individuals with a lot of nervous energy and a great need for achievement. They're primarily interested in getting things done — as quickly as possible. Whereas Implementers turn ideas into working plans. Hard-working and practical, they focus on what is feasible, and then get on with the task at hand. No stranger to a spreadsheet or Gantt chart, they tend to tackle work in a systematic, methodical fashion that ensures maximum efficiency. These are the two descriptors that describe my team role best, I show aspects of both which allows me to be both motivated and efficient when working on a task. I find that efficiency is the most important factor of work and thus try to maximise it in whatever I do.

Topic 1 – Strategic Management Principles

Strategic Management consists of five tasks: Developing a strategic vision and business mission, setting objectives, crafting a strategy to achieve objectives, Implementing and executing the strategy, evaluating performance and monitoring new developments and initiating corrective adjustments.

A mission statement is a formal summary of the aims and values of a company, organization, or individual. A vision statement is a declaration of an organization's objectives, intended to guide its internal decision-making. A vision statement is not limited to business organizations and may also be used by non-profit or governmental entities.

The strategy-making pyramid is used to separate and organise the responsibilities for managers at different levels in a company. This separates the different types of managers so that responsibilities are matched with strategies. The three types of managers are executive managers, head managers and unit managers.

There are two main types of factors that affect an organisations strategy, they are internal factors and external factors. Internal factors consist of: Company resource strengths, weaknesses, competencies, competitive capabilities, personal ambitions, business philosophies, ethical principles of executives, shared values and company culture. External factors are: Economic, societal, political, regulatory, community citizenship considerations, competitive conditions, overall industry attractiveness, company opportunities and threats to the company's wellbeing.

Industry analysis enables a company to develop a competitive strategy that best defends against the competitive forces or influences them in its favour. The key to developing a competitive strategy is to understand the sources of the competitive forces. The forces are known as porters five forces and they consist of: Industry rivalry, threat of substitutes, bargaining power of buyers, bargaining power of suppliers and barriers to entry.

Topic 2 – Information Systems Types

Management Information Systems or MIS are used to assist managers by generating methodical reports that provide feedback on performance providing managers an inclusive picture of the

organisation as well as perform forecasting for future performance based on pattern of existing performance. The reports would motivate innovation, improve productivity, increase product value and assist in making better informed decisions.

Transaction processing systems assists the business in performing daily operations where a transaction is any event or activity that affects the organisation. Office Automation Systems is the collaboration between communication technology, computers and personnel to perform clerical and managerial activities. Knowledge Work Systems are used to promote knowledge growth and the integration of knowledge and technical skills into business. Management Information Systems developed to support planning, controlling, and decision-making functions of managers. Decision Support Systems are designed for every manager to execute a specific managerial task or problem. Executive Support Systems helps decision making at the top-level of an organisation.

TPS are used to process data from business transactions in order to update records and generate reports, some examples of TPS would be Bill systems, Payroll systems and Stock control systems.

MIS are designed to take raw data provided by the TPS and process them into a summarised and aggregated form for the middle manager and operational supervisor, usually in a report format. Some reports would be Summary reports, On-demand reports, Ad-hoc reports and Exception reports.

MIS use information gathered from multiple areas some of which include the TPS, provided by users or from third parties. The types of information include customer data, supplier's data, sales data and staff data such as performance.

Topic 3 – Managing IT Projects

The organisation would first define its mission, goals and objectives before using them to craft the IT strategy and plans. The strategy would then have its performance monitored for comparisons with alternatives, then any problems found would have solutions created due to critical response. This process functions cyclically so as to continually refine the IT management.

The IT strategy is activity based, supply oriented and technology focused this allows the IT strategy to provide infrastructure and services for the other strategies. The differing strategies can be aligned due to a shared culture and goals, along with good communication between the CIO and other members of senior management.

There are seven steps for planning an organisation's IT portfolio these steps are the purpose of the plan, strategic business plan rationale, current systems, new developments, management strategy, implementation plan and budget requirements. This would consist of risk analysis and cost-benefit analysis to access the budget, the risks would also affect the implementation plan and new developments to counter act or mitigate the risks to decrease costs.

Three good IT methodologies are Agile, Scrum and Kanban. Agile is an iterative approach to planning and guiding project processes. Scrum is a methodology for managing software delivery that comes under agile project management. Kanban is a method for managing the creation of products with an emphasis on continual delivery while not overburdening the development team.

The main priorities of an IT project manager are project planning and overall management, promoting and achieving project support, ensuring overall capability with existing technology, minimising duplicate work, utilising team member skills, controlling costs and maintaining budgets.

Topic 4 – Systems Development Models

The sequential approach provides benefits to the system development life cycle because each phase includes a formal review that maximises control. Considerable system documentation is produced. Systems requirements can be traced back to business needs. Allows frequent evaluations based on the intermediate products created in different phases.

The iterative approach provides benefits to the system development life cycle because it encourages active knowledge worker participation. Helps resolve discrepancies among knowledge workers. Gives knowledge workers a feel for the final system. Helps determine technical feasibility. Helps sell the idea of a proposed system.

The seven main tasks in the SDLC are: plan, analysis, design, develop, test, implement and maintain. The plan is important because it organises all future actions, the analysis is needed to establish the business requirements, design is used for the architecture and system models. Development is necessary to build the established design, testing is needed to check the feasibility of the overall SDLC, implementation is needed to put the systems in place, maintenance is required to sustain the implemented SDLC.

Outsourcing is better because it reduces costs for the organisation by reducing the need for specialist personal which decreases wages and training costs, outsourcing also allows for the purchase of pre-built systems for immediate implementation. The outsourced prototyping is beneficial because it enables the usage of a live beta system which allows for consumer feedback during the development stage, it also decreases maintenance costs by using development staff to maintain the systems.

The suitable IS deployment is using a pilot system because it allows for the new system to be live tested whilst the old system is still in place then once the organisation is pleased with the performance with the new system the pilot will complete and the new system would be fully implemented replacing the old system.

Topic 5 – Digital Business Models

The different E-commerce transaction models are Business to Business (B2B), Business to Consumer (B2C), Consumer to Consumer (C2C), Business to Business to Consumers (B2B2C), Consumers to Business (C2B), Business to Employees (B2E), Government to Citizens (G2C).

An organisation can have multiple different e-commerce revenue streams such as transaction fees, licence fees, subscription fees, fees for value added services and advertising fees.

Organisations can receive payments from their revenue streams through a variety of e-payment methods such as Electronic Funds transfer, Electronic checks, Virtual credit cards, purchasing e-cards, E-Cash, Pay at ATMs, Micropayments, B2B special arrangements, E-wallets and Cryptocurrency.

Manufacturing systems, HR systems, Accounting systems and marketing systems are examples of different digital business models. Manufacturing systems monitor the assembling of the product, track the quality of the production and produce bills for materials. HR systems assist with hiring employees, evaluating employees' job performances and enrolling employees in benefit plans.

Organisations can utilise a freemium model to allow for increased marketing and exposure by releasing a basic digital product or service then request payment for the full or premium version of the released product or service. This would traditional not be possible due to the costs of distribution.

Topic 6 – Business Information Systems (ERP/CRM/SCM)

There are three main BIS's ERP, CRM and SCM along with two supporting systems Knowledge management and Partner relationship management. These BIS's are used to interact with suppliers, customers, employees and partners along with all systems interacting with the central ERP. The BIS allow for better decision making as well as better organisation and flow of information.

Enterprise Application Integration (EAI) is used to connect the front-end CRM with the back-end ERP to enable for employees to have quick access to the information stored in the CRM's and ERP's, and to allow for the interaction of information from both systems.

Enterprise resource planning (ERP) is a business software system that supports enterprises throughout a project in organising, planning, maintaining, tracking and utilising resources. ERP's save money over the long run by streamlining processes however they normally have a high upfront cost.

Customer relationship management (CRM) systems are designed to organise customer communication channels. Analyse, predict, and derive customer value and behaviour, and forecast demand. Enables easy collaboration with customers, suppliers, and partners. Allows all employees to respond to customer demands in a faster and more focused manner.

Supply Chain Management (SCM) is a series of interconnected activities related to the transformation and movement of raw material to the finished goods till it reaches to the end user. The goal of SCM is to increase the organisations competitive advantage.

Shabbir Ahmed M00615925

Learning style – VARK

Visual: 10

Aural: 6

Read/write: 7

Kinaesthetic: 11

From this survey, the outcomes show that I am a Kinaesthetic leaner which means I like to touch, feel, hold and do things. I am more of a hands-on type of person. The phases that I believe I use is "let me try". I believe I can try out a new task by going ahead and enjoy experiments.

Personality type – MBTI



E (3)

I (7)

S (12)

N (8)

T (10)

F (10)

J (15)

You are an: ISFJ, this result showed that I am ISFJ which stands for Introvert, Sensing, Feeling, Judging and showcases individuals in four dimensions characterising personality type. This means I like to present my ideas and judge other ideas and I like a sense of feeling around me before I make choices.

Teamwork approach – PAEI

Producers (Paei) (14):

Administrators (pAei) (12)

Entrepreneur (paEi) (19)

Integrator (pael) (10)

The above results showed that I have scored high on Entrepreneur which means I like seeing things on a global scale but not inwards of an organisation. I believe I am optimistic, and this shows I often task calculated risks that leads a team or a business into the new level through new ideas. However, I have receive 10 for Integrator which means I lack a bit of holding a team and not ensuring that all members remain synchronised towards the same goal, this can mean because I like to work alone most of the times and many because I like to lead a group instead as well.

Team role - Belbin

Belbin

implementer: 9. coordinator: 10. shaper: 8.

plant: 8.

resource investigator: 9. monitor evaluator: 6. team worker: 11. complete finisher: 9

From the results above, it shows I have received 11 for team work which means I support to gel and work together and if an individual doesn't do the work I try to complete it behalf of them. The next highest was coordinator which means I am able to focus on the team objectives and targets and draw out team members work suitable to their requirements. This was one of the tasks that I completed during the group report. Finally, I received both 9 for implementer and resource investigator. For implementer, this showed I needed to plan a workable idea and carry this out in the most effective way I can. Completer Finisher shows that I was able to effectively polish and understand work through any mistakes occurred throughout the group report and work which I did.

Topic 1 – Strategic Management Principles

There are five tasks that describe what the term strategic management in a business model is. The first one is developing a strategic vision and business mission. This is mainly about having a clear purpose to the business idea and understanding what ways the business will succeed. Task 2 is about setting the objectives which means what type of objectives is required to make the business a success. There can different type of objectives set for instance, primary and secondary objectives. Management should prioritise the urgency of which objectives needs to be met first. Task 3 is about

crafting a strategy to achieve objectives. Task 4 is about implementing and executing the strategy and task 5 is about evaluating performance, monitoring new enhancements, and making corrective adjustments. Vision statement offers a image of an business choice in the future which offers individuals a deep and in depth purpose. Mission statement outlines the business objective. operational and strategic intent, however the actions for today can be thought of context and top priority. The strategy making pyramid shows that the responsibility of managers are to talk business strategy. It also shows the responsibilities of the heads such as, manufacturing, marketing, finance and human resource. Lastly, the strategic pyramid shows the responsibilities of different kinds of managers in higher/lower positions. There are different factors that can shape a business of their strategy which can be economic, societal and political. A business can achieve competitive advantage by external changes for example, PESTLE factors and by enhancing it inside. There are two standard types of competitive advantage which is cost and disadvantage.

Topic 2 - Information Systems Types

There are different benefits of using MIS. A few include offering an inclusive picture of the business. Another one is adding value to current items and products and aiding with planning. There are different major types of Information systems such as TPS, Office Automation Systems and Knowledge Work Systems. The main functions of Transaction processing system are that it supports daily business by acting on day-to-day operations. The main function of a MIS otherwise known as management information system is that it is enhanced to aid planning, regulating and making choices with the support and function of middle management team. There are different types of information in relation to MIS. Some information is probabilistic which is formed on statistical inference. Another type of is about values, attitudes and power. This is in relation to individuals' values.

Topic 3 – Managing IT Projects

The business performance model is planning and ideas which is conducted by the business to assess the IT management. A business performance model displays planning of the business target goals and set objectives. The business performance model includes the way a business monitors their performance and how often they do this. The business performance model supports the business with coming up solutions to enhance the performance when assessing the IT management. The way to align an organisation IT plans is to find the existing plan and monitor the performance and see if there is another strategy such as time setting up time frame. This is a great way as once the deadline occurs it be viewed by the business which will allow them to have a better understanding of their performance. There are different steps to planning an organisation I.T. portfolio. These are some of the following steps that can happen when assessing the current problem, establishing objectives and monitor measure and re-balance. There are some suitable methodologies for managing the I.T projects in a business which are Agile, Waterfall and Screum. The main priorities when managing the business is project planning. Another is promoting and achieving project support.

Topic 4 – Systems Development Models

There are variety of advantages for using the sequential approach. One is that during the distinct stages, the process is easy to regulate and manage since each stage is predetermined and can be reviewed whenever. An advantage of using the Iterative approach during the IS stage of a business is that it is easy to test and debug during a smaller iteration. There are different activities in the SDLC phase. These are called, Plan, Analysis, Design, Develop and many more. The important ones are Plan which is defining the system and setting the project scope. Analysis is about gathering the

business requirement which is an important aspect of the phase. Testing phase is important also as all records of the system is recorded. Prototyping would be more appropriate outsourcing for an organisation IS as it supports to resolute discrepancies among knowledge workers. This also gives knowledge workers a sense of feel for the end system. There are different types of deployment options. Deployments in the SDLC which is deploying software at different stages of the software development lifestyle which is development, testing and production.

Topic 5 – Digital Business Models

There is different E-Commerce transaction model which are Business to Business, Business to Consumer, Consumer to Consumer, Business to Customer to Consumers, Consumers to Business and many more. There are variety of e-Commerce revenue models some are Transactions Fees, License Fees, Advertising Fees. There are different E-commerce payment methods which is Credit/Debit/Prepaid card payment. This is very popular. Another is bank transfer, this means that the business instructs the customer to make bank transfer directly to their account using an IBAN number. E-Wallets usually require customers to sign up and create accounts, then deposit and withdraw money from linked bank account. This is similar to Paypal and AliPay. There are different digital business models that can be implemented in a business such as Open Source Business Model, Free Model, E-commerce mode and many more. In the Experience model, a digital disruption can take place which is selling productions and service that provide a superior experience to users, at a higher price point like Apple

Topic 6 – Business Information Systems (ERP/CRM/SCM)

Business information systems support different functions roles, there are three ways that this can occur which is, information storage and analysis. Another is helping with making choices and supporting business tasks and process. EAL allows different enterprises by ensuring that their communication easier, it decreases their time and effort and allows for better functionality enables the organization to identify and respond to new opportunities. ERP or otherwise known as Enterprise Resource Planning is a type of business method management software. It is used by a business to control the office and automate the business functions. It makes the system make the data to easily access it and usable for organization of files. CRM stands for customer relationship management. It is a type of technology to control interactions with customers and possible customers. The system supports businesses to build customer relations so they can increase in sales and services. SCM encompasses the main planning and performance of methods and tasks needed to optimize the flow of things and information and functions that normally include command planning, sourcing and production and more.

Tahmeedur Chowdhury M00621979

Learning style - VARK

Visual: 2

Aural: 7

Read/Write: 7

Kinaesthetic: 9

As you can see the results of this survey shows that I am a Kinaesthetic learner. Kinaesthetic learner means touch, feel and holding to do things basically like experimenting and carrying out physical activities rather than listening to a lecture.

Personality type – MBTI

E: 5

1: 5

S: 15

N: 5

T: 15

F: 5

J: 14

P: 6

You are an ISTJ, the outcome of the survey showed me I am an ISTJ which is knowns as introversion, sensing, thinking, judgement. I like to concentrate on facts rather then ideas and concepts and then like to make decisions based on logic and reason.

Teamwork approach - PAEI

Producer: 14

Administrator: 13

Entrepreneur: 13

Integrator: 15

According to the outcome of the survey, I scored the highest on an integrator. This mean that I can manage a group of people and ensure deadlines and goals are met. However, I scored my lowest for entrepreneur meaning that I can improve my ability to create new ideas as well as be more of a risk taker.

Team role - Belbin

Resource investigator: 7

Teamworker: 11

Co-ordinator: 8

Plant: 7

Monitor Evaluator: 8

Shaper: 8

Implementer: 10

Complete Finisher: 11

As you can see according to the results of the survey, I have received 11 for team worker which means I help others when they are struggling and keep the group updated and ensure that all deadlines are met. The joint highest I received with team worker was with being a complete finisher which was also 11 and this means that I ensure all work is complete. Furthermore, for implementer I

received a 10 which means I can make a plan and follow this throughout in the most efficient way possible.

Topic 1 – Strategic Management Principles

There are 5 Tasks associated with strategic management. The first one is strategic vision and business mission. The second task is setting the objectives, the third task is to craft a strategy to achieve objectives. The fourth task is to implement and execute the strategy and the 5th and final task is to evaluate performance, monitor new developments and initiating corrective adjustments. The differences between mission and vision statement are that mission statements plan on targeting certain customers and markets. Vision statements provides the hopes of what an organisation can contribute to the world. A strategy making pyramid can be used to show an organisations responsibilities such as, the managers duties is regarding the business strategy. The strategic pyramid also shows the responsibilities of the heads which involves manufacturing, marketing, finance and human resource. Lastly, the strategic pyramid shows the duties of the different types of managers in higher/lower positions and the strategies they create. The factors shaping the strategy of an organisation is internal and external factors.

Topic 2 – Information Systems Types

There are several benefits when using MIS. One of the advantages are providing a picture of the business. One other advantage is increasing prices of products effectively with the use of planning. There are many types of information systems for example, a TPS and knowledge work systems. The TPS focusses on a business's day to day by keeping up to date. The main function of a management information system is to manage the company's information system and it also generates reports including the feedback of the performance. There are several types of information regarding the management information systems. Some of the data is generated on statistical and the other type is related to values.

Topic 3 – Managing IT Projects

The business performance model is planning done by the organisation to evaluate the IT management. A business performance model shows planning's of the organisations future goals and objectives, as well as the strategy required to achieve these objectives. The business performance model also includes the way an organisation are monitoring their performance and how frequently. Finally, the business performance model also supports the organisation in coming up with solutions to improve the performance when evaluating the IT management. The way to align an organisations IT strategy to an existing strategy is to monitor the performance and see that there are other strategies such as, setting timeframes. This is a great way as once the deadline is completed it can be monitored and checked to see if the deadline was met which gives the organisation a better understanding of their overall performance. There are some different steps to planning an organisations IT portfolio. These are some of the following steps assessing the current situation, establishing objectives and monitor, measure and rebalance. Three suitable methodologies for managing IT projects in an organisation are Agile, scrum and waterfall methodologies. The main priorities when managing an organisations IT project is project planning and overall management. Another one is promoting and achieving project support. One other is to utilize team member skills as well as controlling costs and maintaining budgets.

Topic 4 – Systems Development Models

There are different types of benefits of using the sequential approach. One advantage is that while discrete stage the process is easy to control as each stage is prearranged and can be rechecked whenever. There are also different benefits of using the Iterative approach during the Information Systems stage of a business which is that it is more flexible which means it is less costly to change and the requirements. The main activities in the SDLC phase are plan which is important to define system and setting the system objectives. Analysis is about inputting the business requirements. The testing phase is also important as the system will be tested for success or failure. Prototyping is important as this aids to find inconsistencies among information workers. This eventually gives information workers a sense of feel for the final system. There are different deployment options which is in the SDLC which is deploying software in the SDLC and this includes the development and testing and production system.

Topic 5 – Digital Business Models

There are different types of e-commerce transaction models which are business to consumer, business to business, customer to business and many more. Moreover, there are lots of e-commerce revenue models. The main ones are advertising fees and transaction fees. There are different ways of conducting e-commerce payment, the popular way credit/debit card. It is important that site is reliable and dependable. Furthermore, there are several digital business models which can be implemented and one of these are an open source business model. Digital disruption can benefit the organisation as it can lead to further growth as well as provide the organisation with new potential opportunities.

Description of the organisations information systems function

list of functions to be added:

Huber Technology use an ERP (Enterprise Resource Planning) and some of the functions are:

- Accounting
- Inventory control
- Human resources

Huber Technology use an CRM (Customer Relationship management) system and some of the functions are:

- Customer service automation
- Marketing automation
- Sales force automation

Saleeman Saleeman M00624633

Learning style - VARK

Visual: 2

Aural: 3

Read/write: 3

Kinaesthetic: 8

Personality type - MBTI

E (7)

S (14)
T (9)
J (13)
I (3)
N (6)
F (11)
P (7)
My personality type is ESFJ I am a emotional in an environment and attentive to both feelings of others and the perception to others. ESFJ value loyalty and tradition and usually make their family and friends their top priority.
Teamwork approach – PAEI
Producers (11)
Administrators (14)
Entrepreneur (14)
Integrator (16)
This states that I am Entrepreneurs, I like to focus on future opportunities and threats, what changes to make, longer term and the big picture and can generate new ideas to improve methods, products and business easily.
They provide energy for, and insights to, needed change for the organization. They are catalysts for needed changes in organization.
Team role – Belbin
Resource Investigator (10):
Team worker (9):
Co-ordinator (9):
Plant (9):
Plant (9): Monitor Evaluator (7):
Monitor Evaluator (7):
Monitor Evaluator (7): Shaper (9):
Monitor Evaluator (7): Shaper (9): Implementer (10):

Topic 1 – Strategic Management Principles

There are five components that describe what we mean by team strategic management. The first one is developing a strategic vision and business vision

the second point you have to describe is setting objectives the third task is crafting a strategy to achieve the objectives the fourth task is implementing and executing the strategy.

The difference between mission and vision statements is mission statements is 1-5 years and vision statements is 5 years. Mission statements is for the present and vision statement is for the future. Vision statements are usually provides for present direction.

The last task is to evaluate performance monitor new development and initiating corrective adjustment. a strategy making pyramid can be used to show where what company leaders are business strategy is at the top because they are responsible for high level managers. the operating strategies is at the bottom because the responsibility lays on the manager. Shaping a strategy of an organisation the external and internal factors of the economic and political regulatory.

Topic 2 – Information Systems Types

The systems have standard organisations there are different benefits of using MIS. A few include offering an inclusive picture of the business. The most common types of information systems they use is MIS and it generates methodical reports there are different major types of Information systems such as TPS, Office Automation Systems and Knowledge Work Systems. The main functions of Transaction processing system is that it supports daily business by acting on day-to-day operations. The main function of a MIS otherwise known as management information system is that it is enhanced to aid planning, regulating and making choices with the support and function of middle management team. There are three types of systems they use is transaction processing system and office automation systems and knowledge systems.

Topic 3 – Managing IT Projects

The way Huber use the business performance model is to identify there company aims and objectives which target to improve relationships and boost revenue the objectives of Huber are analysed through the use of performance indicator systems to give them a idea of how much progress they have made with their objectives.

it is important for Huber to Aline there IT strategies with their organizational strategies to ensure the outcome of both strategies are connected and also the type of strategy Huber use is the activity based IT strategy which is best appropriate for both strategy types.

the IT pro folio planning relates to the establishment of the planning needed to ensure the strategies will be successful this will involve discovering the strengths and weaknesses of each strategy to investigate which areas are doing well and were improvement is needed .

One of the more recognizable project management methodologies, Agile is best suited for projects that are iterative and incremental. It's a type of process where demands and solutions evolve through the collaborative effort .traditional project management methodologies, Waterfall is a linear, sequential design approach where progress flows downwards in one direction Scrum is comprised of five values: commitment, courage, focus, openness, and respect. It's goal is to develop, deliver, and sustain complex products through collaboration, accountability, and iterative progress. Begin by looking at each project on your list with one simple question in mind: How will this project impact business? While you certainly want to take the organization's bottom line into account, you also need to consider how a project will affect people.

Topic 4 – Systems Development Models

The benefits of using a sequential approach is that first you have to understand the business problem or opportunity. 2) You have to develop an information system solution and lastly you have

to implement the information system solution. the iterative model begins with identifying the users businesses requirements and then develop businesses system protypes also you revise the prototypes to better meet end users requirements and lastly you use and maintain the accepted business system. Huber technology would use the iterative approach for the sdlc because it helps with revising the prototypes to meet the requirements and also modify and maintain the businesses system. the first step of outsourcing protyping is identifying the basic requirements the second step is to develop initial protype thirdly knowledge worker reviewing and lastly to revise and enhance the protype. The best system deployment option is parallel because is simple an effective to use.

Topic 5 – Digital Business Models

The e-commerce model that are utilised by business is an example of business to consumer, consumer to consumer, business to business to consumers, business to employee. B2C is an example of business to consumer on the Huber technology.

The recover -commerce revenue streams for an organisation are transaction fee, licence fee, subscription fee, fee for value to add service and advertising fee.

the different e payment methods that an organisation can use is transaction fees subscription fees license fees advertising fees.

the organisation can use different digital models such as a business model, free model, on-demand model and e-commerce model.

Digital disruption is a transformation that is caused by emerging digital technology Kodak were one of the first to introduce cameras to the mainstream market. They monopolised the markets for the majority of the 20th century, but unfortunately failed to keep up with the changing identities of their customers and the changing needs and expectations that came along with them.

Topic 6 – Business Information Systems (ERP/CRM/SCM)

There is three ways that a BIS can function to aid a business which are, information storage and analysis, assist with making decisions and assist with business processes. Any business can use information systems to evaluate information from any sources.

It is vital for Huber technology to maximise the use of EAI. Integration been enterprise application such as ERP, CRM and E-commerce platforms enable communication between all business application and the ease of data exchange. This ultimately means Huber technology can utilise this method and effectively create and automate business processes saying both time and resources for the organisation.

Huber uses an outsourced Enterprise resource planning (ERP) system called IFS so as to reduce IT costs while organising, planning, maintaining, tracking and utilising resources. ERP's save money over the long run by streamlining processes

CRM stands for Customer Relationship Management. It's a technology used to manage interactions with customers and potential customers. A CRM system helps organisations build customer relationships and streamline processes so they can increase sales, improve customer service, and increase profitability.

Supply chain management is the management of the flow of goods and services and includes all processes that transform raw materials into final products. It involves the active streamlining of a business's supply-side activities to maximize customer value and gain a competitive advantage in the marketplace. Huber technology presents an effort by suppliers to develop and implement supply chains that are as efficient and economical as possible.

Zakariye Hussein M00632969

Learning style - VARK

Visual: 4 Aural: 10 Read/write: 3 Kinaesthetic: 9

This shows I am primarily someone with an Aural learning style has a preference for the transfer of information through listening. These types of people learn better listening to explanations.

Personality type – MBTI



You are an: ESTJ

As an ENFJ. The main way that you live is focusing externally. You deal with situations depending on how you feel about them. Or how they fit into your values. The second mode is internally where you take things in though intuitions. ENFJ's are people-focused individuals. Living in a world of people possibilities.

Teamwork approach - PAEI

Producers (Paei) (15):

Administrators (pAei) (12)

Entrepreneur (paEi) (17)

Integrator (pael) (9)

Entrepreneurs focus mainly on future opportunities and future threats. They aim to make changes in the long term. And using the bigger picture generate new ideas to make things simpler or design new products and businesses that will.

Team role - Belbin

Resource Investigator (9)

Team worker (6)

Co-Ordinator (4)

Plant (12)

Monitor Evaluator (5)

Shaper (19)

Implementer (5)

Completer Finisher (10)

Specialist (0):

This survey identified me to primarily be a shaper. Shapers are considered highly motivated. Their aim is to complete tasks in the fastest and most efficient way possible. They are familiar with many tools that help get tasks done quicker like spreadsheets.

Topic 1 – Strategic Management Principles

Strategic management is combination of multiple things first of all the 1st component needed in strategic management is to develop a strategic vision and business mission , the 2nd part is to set the objectives accurately , 3rd part is to craft a strategy to achieve the objectives effectively , the 4th part is to implement and then you would need to execute the strategy . When it comes to mission

statements they include a much high number of criteria which can be used to outlining strategies as there designed affectively and implemented strategically.

When determining the factors which shape strategies of organizations firstly the things which come into mind is operating strategy which outlines to manage the front-line organizational units with in the business such as the income, outcome, sales and the distribution centres.

When it comes to industries there is a lot of competition due to every business wanting to make the most income and revenue, within rivalry competitors one of the useful points is number of competitors, diversity of competitors.

However, another issue of the rivalry amongst existing competitors is the threats of the new entrants include the barriers to the new entry as well as the overall distribution of the channels, switching costs, the overall requirement's as well as the cumulative experience.

Furthermore, I will also outline the bargaining power of suppliers they include, the number and size of the suppliers, attributes of every single suppliers' product and the way the company works and operates.

To conclude, bargaining power of buyers will also need to be covered, which include the number of customers, the size and depth of the orders which the customers make, everything will need to be in depth, there will need to be a difference in the competitors as well as a reasonable price.

Topic 2 – Information Systems Types

- 4.1) MIS allows the organisation to enhance their operational productivity and bring about more benefits to the company this is done by helping them with their decision making and adding value to existing products that exist already. Furthermore, Mis can also help improve the development of products and also help improve communication within the company
- 4.2) There are many ways in which information systems are used in an organisation and there are many types of information systems that are used in different organisations however the most common among these are: TPS: Transaction processing systems, this is usually used at organisations that are low level and is a simple point of sales system that can record the company's transactions. MIS: Management information system its main function include enhancing and aiding an organisation in many aspects such as planning, regulating and decision making to optimise efficiency. Executive Support Systems, this Information system is normally operated by CEO's of the company or major stakeholders. This system is used to make major decisions for the company. This usually means long term decisions.
- 4.3) The main functions of a transaction processing system are to generate information for the other systems to use. Processing Transactions within the company. Allowing for order entry and supporting daily operations for example billing record keeping and orders
- 4.4) Management information systems or MIS are systems developed for higher ranking staff. These systems are used to allow companies to plan and control decisions for companies' middle managers 4.5

The types of information required in an MIS are listed below: Probabilistic Information
Judgmental Information
descriptive information
explanatory and evaluated information
unexpected information
information about Values, Attitudes, and Power
Topic 3 – Managing IT Projects

6.1/ For companies to reach its goals, they should make sure they understand what kind of future they want for the organization and how they can achieve their objectives and goals. By this stage, the organisation still has to find the correct strategies and plans to help them achieve their ultimate goal this could be done by scenario planning. By keeping track of the organisation's performance, they can also find things they have done incorrectly and improve off of those mistakes. In order for the organisation to go further and improve they should stop and find ways to improve the company's performance.

- 6.2 IT business collaborations can be developed by practices like strong communications, Shared culture, Identification of plan causes, Shared plan priorities, awareness of IT and cooperate preparation, CIO being a senior management member, deep commitment of senior management to IT planning, joint architecture / portfolio selection and deep engagement of end users.
- 6.3) Find out the purpose of the plan. Establish a good strategic business plan. Take a look at the current systems. Pay attention to the current systems. Find out which management strategy you will use. Create lab implementation plan. Take a look at the budget requirements and through analysing benefits and risks, the organisation may align their IT project portfolios
- 6.4/ Extreme programming. Develop rigorously to ensure Kanban quality- Improving the quality of the delivery and also speed this can be done by increasing the exposure of ongoing work and minimising multi-tasking. Waterfall carefully planning projects are carefully planned and executed through phases.
- 6.5 In order to become more qualified, rule out the risks, managing partnerships with external parties, defining leadership roles, concentrating on scope management, establishing a project concept or charter, maintaining clear reporting standards, developing effective communication networks, keeping an eye on costs and closing.

Topic 4 – Systems Development Models

Sequential approach makes structure for evident which makes it simpler to understand and interpret, phases which were done previous prior to sequential approach would have been done spot on with no error issues which makes everything effective, it's all done to plan which follows a substantial approach.

Iterative makes sure IS of business lets enhanced collaboration between users so they can set future goals and they will tend to make sure goals are met up to date without going through any errors, and making sure users are up to date with everything. users will be able to see how each step is done and they will get an overall understanding of how each stage is being done.

SDLC comes in different phases which include planning, which defines the situation going, the overall all aims, analysis analyses the reequipments and deliverables design outlines the requirements, development is where codes are inputted, testing tests users information, system maintenance, updates anything which occurs.

Firstly, outsourcing prototyping is useful due to the fact its relatively at a decent, as well as other phases from SDLC are continued to the business of the sourcing prototype m it lets other users understand and acknowledge how everything is working.

When it comes to IS deployment cloud is the most effective mainly due to its price being relatively cheap and its effective due to its maintenance and it is working generally fine with hardware's and the information is compatible. Another IS deployment which is effective is hybrid which is reliant and trustworthy by it working genuinely effective with everything with its robust data.

Topic 5 – Digital Business Models

There are many types of ecommerce transaction models they include.

Business to consumer(B2C)

- Consumer to consumer (C2C)
- Business to business (B2B)
- Government to Government (G2G)
- Consumers to Business (C2B)
- Government to Business (G2B)
- Government to Citizens (G2C)
- Consumer to government (C2G)
- Business to business to consumers (B2B2C)
- Business to employees (B2E).

Revenue streams are simply effective as they mainly consist of things such as advertisement fees this is where advertisement is put ahead of videos for example in YouTube before you watch a video an advertisement is put up first so that revenue is generated.

Organisations simply implement many payments which consist of e[payments such a direct debit which includes cards such ads metro bank which is used worldwide where you can transfer money, send money all over the world as well as using online banking where you can manage your account, there's also e cash where everything is stored and generated.

Open source model is an effective model for many organisations, which generates an effective revenue as well as having, on demand, peer to peer, ad supported, e commerce as well as subscription fees and freemium.

Subscription model is useful this is where a lot of money in today's society is generated through social media , Netflix , PSN and many more ways its where a user is charged subscription fees either every month or year or every couple months as they pay for a platform and they get what they looking for example in play station you pay for PSN to play online each month , generally you will tend to pay from around £5 a month and you get a whole month's worth of online activity.

Topic 6 – Business Information Systems (ERP/CRM/SCM)

There are many different types of business information systems. However, the three main ones are ERP, CRM and SCM. Along with this are 2 support systems knowledge management and partners relationship management. These business information systems are used to interact with Employees, customers and suppliers without the need for a lot of human involvement. This is beneficial as it reduces human error allows for a better decision making and organises the data flow of the organisation. EAI is used to connect the front of the end CRM and the back ERP to allow quick access to information stored in the CRM and ERP both systems are then granted the ability of interaction. ERP is a software that is used by businesses to integrate many processes through a project. This can include planning organising maintaining etc. This system saves time and money and reduces the room for error. However, the disadvantages of an ERP system are the cost as it is very high. CRM also known as Customer relationship management. This system is used to organise customer to company communication channels. Its purpose is to analyse predict customers behaviours and foresee the demand of the customer. This allows the organisation to stay ahead of the demand and produce when it is needed saving time and money. SCM also known as supply chain management. This is a series of activities that are bound in a chin these activities are directly related to editing and transporting raw materials to the finished product till it is received by the end user. The aim of the SCM is to stay ahead of the competition.

Masoud Ahmed M00654144

Learning style - VARK

Visual: 4 Aural: 5 Read write: 0 Kinaesthetic: 7

Being an *Aural* and *Kinaesthetic* learner, I figured out that my primarily method of learning is being able to interact with physical activities rather than sitting down and reading/writing or sitting in lectures. Rather than sitting down and watching demonstrations I learn best by interacting with these demonstrations and ultimately getting involved hands-on.

Personality type – MBTI

ISTJ

e: 2

i: 8

s: 15

n: 5

t: 17

f: 3

j: 16

p: 4

Essentially, this outlines that I resemble characteristics of *ISTJ* this means that when I tend to work towards a set objective, I go all out meaning that my time, energy and effort is put towards making sure each relevant task is completed with absolute accuracy and patience.

Teamwork approach - PAEI

Producer: 16 Administrator: 14 Entrepreneur: 11 Integrator: 14

From this I can analysis that I share both a strong and weak characteristic when looking at Producer and Entrepreneur. This ultimately tells me that I am passionate when it comes to executing a set task ensuring results are met. From my understanding, I work towards an end goal and not how the goal is completed. My weaker area being Entrepreneur, this means that I struggle in sharing my ideas and expressing my thoughts and ideas. I also clash with the idea of tracking a task unstructured meaning goals must be set to meet.

Team role - Belbin

Implementer: 8 Coordinator: 7 Shaper: 14 Plant: 3

Resource investigator: 10 Monitor evaluator: 9 Team worker: 7

Complete finisher: 12

From my gathering, I can see that I show strong characteristics of both *Sharpers* and *Complete finisher*. Sharpers are driven individuals who achieve push to goals when others think of quitting. This means overcome obstacles others may find challenging and somewhat impossible. Complete finishers are individuals who seek to projects are completed thoroughly. This ultimately means ensuring that no errors are looked over even to the smallest details. Ensuring deadlines are met and the set task is completed on time characteristic being somewhat identical to perfectionists. Primarily this shows that I ensure that all possibilities are identified and ideally meeting deadlines on time completing task with perfection leaving no errors.

Topic 1 – Strategic Management Principles

The 5 tasks associated with strategic management of an organisation is developing a strategic vision and business mission, setting objectives, crafting a strategic to achieve an objective, implementing and executing the strategy and evaluating performance, monitoring new developments, and initiating corrective adjustments.

Mission outlines the organisations goals within operational and strategic intent, this is done via actions within day to day basis whereas vision gives a broad understanding of a business' future goals to give a deeper understanding of its purpose.

A strategy-making pyramid identifies responsibilities across an organisation by strategically placing most responsibility towards the top half of the pyramid namely being the responsibility of executive level managers, one level below that being head of every department being more specific in role however holding less responsibility compared to one level above. similarly, the last level holds the least level of responsibility when comparing all three levels however states specifically what they do.

There are two main factors shaping the strategy of an organisation one being Internal and other being External, Internal factors include company weakness, strengths and competitive capabilities. Also shared values and company culture. External factors may include competitive conditions and overall industry attractiveness and company opportunities and threat to the company's well-being.

For you to come up with a good strategy to deal with the competition in the industry, you must first understand the industry itself therefore have a good impact on the strategy of an organisation. This can be done via Poters' five forces which include rivalry among existing competitors, bargaining power of supplies, threat of substitute products, bargaining power of buyers and threat of new entrants.

Topic 2 – Information Systems Types

A benefit of management information system for an organisation is achieving a competitive advantage over rival organisations within the industry. By having an organisation that's running more efficiently and eliminating weaknesses and reducing non-performing areas increase the company's competitive edge over competitors therefore giving them a competitive advantage.

Main roles of information systems include organisational, management and technology. An information system is a set of components that's work collectively to store, breakdown, process and collect information in order to support a making of a decision.

Transaction processing systems is a common type of information system. TPS is a system that supports the basic/daily performing operations within the organisation. Without TPS organisations would have to manually gather and sort through thousands of transactions by hand which may be

very timid and time consuming to deal with, errors may also occur which can be reduced by using TPS.

Management information systems commonly known as MIS, support key planning and decision-making functions of managers within an organisation. This is done by creating databases managed by a system to then produces methodical reports for every level of a company.

A key example of MIS within an organisation is at schools, we use MIS to task class registration, signing in for attendance, timetable sheets, maintaining student records and many other tasks. This enables the school to function automatically dealing with daily activities efficiently.

Topic 3 – Managing IT Projects

When applying a business performance model, we must first identify key goal and mission the organisation wishes to achieve. Primarily this builds a platform in which the organisation can develop a strategy enabling them to achieve set goal which then is closely overviewed to ensure that goals are being achieved, if not this effectively enables the organisation to spot any limitation to the model and implementing fixes to these errors by identifying the problem.

An organisations IT strategy has many attributes that describe it well, however in this instance I will describe the two key strategies; being mobility and imitability. Mobility is described as the ease of transportation of resources. Imitability describes

Different steps of planning organisation's IT portfolio include; Strategic Planning, New developments, Project prioritisation, Management strategy, Budgeting requirements, Deadlines for set tasks, Documentation of IS planning stages and Executing set plan

Three methodologies used to manage IT projects include; Kanban, Scrum and lastly, Agile.

When it comes to identifying key aspects for an organisation to priorities, the organisation much consider; risk assessment, budgeting to ensure it doesn't exceed the budget and lastly, setting a time frame in which an objective should be completed in. This ultimately ensures that the organisation is aiming to achieve goals and effectively progress.

Topic 4 – Systems Development Models

A benefit of using sequential approach whilst developing the IS of an organisation is to identify key problems and essentially outline opportunities that may arise. Developing and IS solution can be constructed via the use of system analysis and design in which a specific IS solution can be excused to tackle any problems the organisation is facing.

The main benefit that comes with the use of iterative approach whilst developing the IS enables organisations to analysis and effectively find end users to in depth analysis the business requirements and identify any needs that may arise, ultimately to identify and assess many IS solutions to meets the needs of the organisation.

Many activities involved in an organisation's software development life cycle (SDLC) include, plan, analysing, design, testing, implement and maintain. An example of the rationale for selecting plan includes the fact that a project should have a plan set in place and sub task to help ensure that the project has a clear outline of what needs doing.

Outsourcing prototyping is appropriate for an organisation's IS development process as it ensures that the skill of staff is suitable, ease of communication between staff and throughout the organisation and enables flexibility for staff to work within external companies.

The most suitable IS development option for and organisation's IS would be Phased. Primarily this is because the end user would get accustomed to the new system by using the old system therefore making a smooth and easy transition rather than having to learn a completely new system from the beginning.

Topic 5 – Digital Business Models

Different e-commerce transaction models that are relevant to an organisation consist of; Business to Business (B2B), Business to Consumer (B2C), Consumer to Consumer (C2C), Business to Business to Consumers (B2B2C), Consumer to Business (C2B), Business to Employees (B2E), Government to Citizens (G2C)

Different types of e-commerce revenue streams for an organisation consist of marketing fees, licence fees, marketing, subscription fees, transaction fees and lastly advertising fees.

An example e-payment method that an organisation deploy includes the following; E-cash, ATM, Cryptocurrency, E-wallets and virtual credit cards.

Different digital business models that can be implemented by an organisation are Free model (providing a free service, slowly charging after attracting customers), E-commerce model (online sales) and Subscription model (dealing via the loyal of customer, continuous revenue stream)

A prime example of digital disruption that may benefit an organisation is free model. This is the form of giving a customer a taster of the product prior to purchasing. This enables the customer to test out the product before-hand to see if it meets their desired expectation.

Topic 6 – Business Information Systems (ERP/CRM/SCM)

BIS Supports different functions within an organisation with the use of ERP systems, this initially enables an organisation to manage functions such as manufacturing, sales, inventory, purchase, marketing and inventory.

It's crucial an organisation achieve enterprise application integration (EAI) as this enables them to execute the ease of communication throughout e-business applications. For example, customer relation management and enterprise resource planning can share and exchange data between both applications.

The role of ERP system within an organisation is to produce a business system that assists the organisation fulfilling a project within key outlines of; planning, maintaining and tracking progress. Enterprise resource planning essentially this saves money over the period of a project as processes are maintained, but this usually comes with high up-front cost.

The role of CRM system within an organisation is ultimately designed to organises and manage current and new customers. Customer relationship management is also used to predict and analysis customer values and behaviours. For example, if customer bought more jackets during winter, you will have high demand during that period whereas to summertime. Helping organisations identify demand.

The role of SCM system within an organisation is used when moving and transforming any raw material to a finished product which is received by the end user. Supply chain management is essentially used to ensure that an organisations competitive advantage is increased.

Bibliography

Huber.de. (2016). *Archived News Article*. [online] Available at: https://www.huber.de/press/news-archive/archived-news-article/news/huber-se-at-ifat-2016.html [Accessed 11 Jan. 2020].

B2U - Business-to-you.com. (2019). Porter's Five Forces EXPLAINED with EXAMPLES | B2U. [online] Available at: https://www.business-to-you.com/porters-five-forces/ [Accessed 12 Nov. 2019].

Arthur A. Thompson & Strickland, A. J 2003, Strategic management concepts and cases, 13th ed, Boston McGraw-Hill/Irwin

Existek.com. (2017). SDLC Models Explained: Agile, Waterfall, V-Shaped, Iterative, Spiral. [online] Available at: https://existek.com/blog/sdlc-models [Accessed 2 Dec. 2019].

Bhasin, H. (2019). *12 Different Types Of Management Information Systems*. [online] Marketing91. Available at: https://www.marketing91.com/types-of-management-information-system/ [Accessed 24 Nov. 2019].

Paginas.fe.up.pt. (2019). :::---MANAGEMENT INFORMATION SYSTEMS---:::Chapter 2. [online] Available at: https://paginas.fe.up.pt/~acbrito/laudon/ch2/chpt2-1main.htm [Accessed 24 Nov. 2019].

Chris-kimble.com. (2019). *Different Types of Information System and the Pyramid Model*. [online] Available at: http://www.chris-kimble.com/Courses/World_Med_MBA/Types-of-Information-System.html [Accessed 24 Nov. 2019].

Eby, K. (2018). *Demystifying the 5 Phases of Project Management*. [online] Smartsheet. Available at: https://www.smartsheet.com/blog/demystifying-5-phases-project-management [Accessed 11 Jan. 2020].

Free-management-ebooks.com. (2019). [online] Available at: http://www.free-management-ebooks.com/images/pmsc0701.png [Accessed 2 Dec. 2019].

Theartofservice.com. (2019). The Six Types of Information Systems and their Functions – The Art of Service, Standard Requirements Self Assessments. [online] Available at: https://theartofservice.com/the-six-types-of-information-systems-and-their-functions.html [Accessed 24 Nov. 2019].

Greengard, S. (2016). *The Pros and Cons of the On-Demand Economy*. [online] Baselinemag.com. Available at: http://www.baselinemag.com/intelligence/slideshows/the-pros-and-cons-of-the-on-demand-economy.html.

Brand, T. (2018). *Digital business models for the automotive and industrial sectors*. [online] PA Consulting. Available at: https://www.paconsulting.com/insights/2017/digital-business-models/.

Baltzan, P. and A. Phillips. 2018. Business Driven Information Systems. McGraw-Hill Education. 6th ed. ISBN 978-1260092929

Patel, R. (2019). *On-demand App Benefits, Applications and Future*. [online] YourStory.com. Available at: https://yourstory.com/mystory/on-demand-app.

Business Jargons. (2019). What is Enterprise Resource Planning (ERP)? definition, features and steps - Business Jargons. [online] Available at: https://businessjargons.com/enterprise-resource-planning-erp.html [Accessed 29 Nov. 2019].

Turban, E., Volonino, L., McLean, E. and Wetherbe, J. (2009). *Information technology for management: transforming organizations in the digital economy*. New Jersey: John Wiley & Sons.

Dingeldein, T. (2019). What's the Difference Between CRM and Marketing Automation Software?. [online] Blog.capterra.com. Available at: https://blog.capterra.com/whats-difference-between-crm-and-marketing-automation-software/ [Accessed 8 Jan. 2020].