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**ICTICT517**

**Task 1**

**Student ID:** 83126277

Question 1

Given the following scenarios. Conduct SWOT (Strength, Weakness, Opportunity, or Threat) Analysis. Also specify the reason of the analysis.

1. You have recently hired a new marketing manager who is inexperienced

2. Your main competitor has a better marketing campaign than you do

3. You sell the same products as your competitor

4. One of your competitors went bankrupt

5. You have recently been approached to join forces with a competitor

6. You have created an innovative new product, the first of its kind

7. A new competitor moves into the same geographic area as you

8. Your employees are very experienced at what they do

9. You are having a price war with one of your competitors

10. One of your products had to be recalled due to safety concerns

11. You want to have a website on the internet

12. New legislation has adversely affected the level of tax you pay

13. Your competitor offers lower prices for a similar type of product

14. Your products break as soon as your customers get them out of the store

**Answer**

**INTERNAL ENVIRONMENT**

STRENGTHS

* Innovative product
* Experienced staff
* Possibility of a website

WEAKNESSES

* Inexperienced marketing manager
* Safety concerns related to the production of one product
* No online presence
* Fragile products
* Weak marketing campaign

**EXTERNAL ENVIRONEMNT**

OPPORTUNITIES

* Little to none variety of products on the market
* Disappearance of a competitor from the market may result in a bigger customer base
* Collaboation with competitor
* New competitor may introduce innovation in the industry which would improve the market

THREATS

* Competitor’s bankrupt causes need to be analysed.
* New competitor may tke part of the customer base
* Price war with competitors is harmful to profitability.
* Tax increase would bloat prices or reduce profitability

The SWOT analysis has been conducted to identify areas of possible improvement, issues and inadequacies that compromise the success of the company, opportunities that the company may be missing and in what measure the company is capable of implementing solutions and innovations.

Question 2

Why is it important to analyse and document strategic plan of the organisation? Justify your answer with suitable example and considering current industry standards.

**Answer**

Either an informal plan adopted by a smaller organization, or a complex, detailed and formalized one used by larger companies, a strategic plan is a valuable tool to set goals to be achieved, tasks to achieve them and threats that could prevent the realization of those objectives.

It is part of strategic planning, the analysis of an organization circumstances and of the context in which it operates. No organization is exactly equal to another, and a strategic plan has to be adapted to the specific needs of each one.

The importance of a strategic plan lies in the awareness it creates about a company’s situation, opportunities and goals.

Many factors can contribute in the stagnation of an organization’s evolution and if not addressed properly they can have heavy repercussions on a business. The purpose of a stratgic plan analysis is to prevent this stagnation by recognizing what should be done, what can be done and what should be changed to keep imporving the organization potential.

But because awareness without acction would lead to sterile outcomes, a strategic plan should also provide the steps to undertake to concretize the solutions and opportunities identified, by levereging the strengths and limiting the weaknesses of a company.

A good strategic plan needs to be adaptable and constantly evolving as to always mirror the needs of a business.

Documentation related to strategic planning is varied and can assume numerous forms, but its purpose is to offer a decision making tool for management and a reference against which compare the realization and evolution of a strategic plan.

Question 3

Consider the organisation of yours. Document and report the current state of ICT system and practices. If you are currently not working, then perform the task on the small-scale businesses in your area. Justify your answer with your findings.

**Answer**

For this answer I will take in exam a company I’ve been working for, not a long time ago.

RDB spa operated in the industrial structures prefabrication sector on a big level. The company has been leader in the market for many years, during which it developed an heavy and complex structure of operations.

This structure, which allowed RDB to evolve from a small factory born short after WWII, to the colossus it came to be in the following years, ended up becoming an hinderance to its own evolution, severly compromising its capacity to generate profit in its last years.

Discussing all the aspects the lead to the fall of RDB would require more time, resources and space than what is reasonable for this answer, and would definetly exceed the scope of the question, therefore I will focus solely on the implementation of the IT system for the sales department.

On the surface, RDB fully embraced the technological revolution. Their website was the state of the art for its times and although it wasn’t much more than a brochure website, the design, content and navigation reflected the most modern web development practices and standards, to offer its users a pleasant, hussle free experience. All the infomration were there, easy to reach. The customer facing side was good. And that was a problem.

Nowdays, a website is necessary to every business, no matter what they sell, even just for credibility reasons. If not a website, some other form of online presence should always be considered, but for a big company, a website is the least that is expected. As I’ve said, RDB delivered in that regard, but the problem is that it stopped there as if it would suffice.

Industrial structures prefabrication is not exactly the kind of business that people looks up on the internet. The players on that field are well known by all the people interested in the game and for a company that mostly relied on external sales agents for its marketing and sales, a website is even more of a façade than anything else. An agent that works on commissions tends to find and develop closer relationships with customers, rather than redirecting them straight to the company. Even moreso if an internal network of salaried salesmen, hungry for kpi, exists. And that has been the standards for all the organizations that operated in that sector for many years.

But things changed.

Competitors started to implement technologies even in their external sales department. Ad hoc sofwares have been developed to help their agents and to organize them, making them more efficient, giving them better promotional tools and automating many of the tasks they previously had to deal with manually. Many of the agents that before operated as their own full fledged business, with offices and computers and archives and so on, started to operate entirely from their phones.

Those heavy structures disappeared, in favour of lightweight, agile, fast, low cost and adaptable solutions.

They thrived.

RDB didn’t embrace the change. They kept doing things the way they always did. They produced high quality products, sure, but they were slow and expensive compared to their competitors. Their name, their reputation, kept them alive for some time, but this inability to innovate, to scan the environment they were moving in and adapt to it, this inability to change from within, eventually contributed to its end.

Many of these problems are encountered by other companies, and are what prevent the implementation of a functional and successful strategic plan.

This story goes to show how important awareness and action are and how they should work sinergically in analysing and planning the future moves of a company.

Question 4

Analyse the possible IT gaps and improvements possibilities based on the following scenario.

The staff in a company currently uses Excel for recording the customers’ records. MS Excel has been used for three years. However, that company plans to use CRM – Customer Relationship Management in future. Prepare the report considering the following –

a. What are the gaps in both?

b. What are the improvement opportunities?

c. What are the proposed changes?

d. What are the financial implications?

**Answer**

* Staff needs to be trained to use the CRM
* The CRM software needs to be installed on the machines that need it
* The IT infrastructure needs to be modified to support the CRM
* A databse needs to be created or integrated with the CMR
* Data currently held on spreadsheet need to be moved to the new system
* Data centralization for a unique and uniform source of information
* Email and calendar functionalities integrated in the application
* Reports can be automatically generated from the stored data
* Network connecction facilitates collaboration
* The software can be tailored to suit the business needs
* Data are accessible online from virtually anywhere with any device.
* Customers details are currently recorded in MS Excel spreadsheet. This system, although it proved to be effective for the last three years, is not very efficient. The company has decided to adopt a Customer Relations Management (CRM) system to improve data organization, availability, acccessibility and to streamline the creation of reports and statistics.
* Appointment setting and emailing are currently based on separated systems, making the related processes prone to human errors and unnecessarily laborious. The CRM software provides inbuilt functionalities for both, keeping everything in one place, accessible by everyone and inter-connected.
* The production of business reports currently relies on human staff analysing the data collected on the spreadsheet. The task can be time consuming and even with well trained and experienced staff, errors could still compromise the precision of the infomration. A CRM with integrated reporting features would streamline the process. Reports and statistics would be virtually immediately available to management and the information provided would always be current and correct.
* The first financial consideration involves the price of the system. Excel is a proprietary product that requires a licence to be periodically renewed in order to be used lawfully. A CRM can possibly be a once off cost for the company, if the entire system is bought.
* The price of a CRM can vary depending if the company decides to opt for an off-the-shelf solution, or if they require a custom product. An off-the-shelf product would tipically cost less, but wouldn’t necessarily fully meet the company’s expectations.
* Staff redundancy can be expected as a result of the installation of the CRM solution. Administrative and customer management tasks are going to be streamlined and less people can be expected to achieve more.
* Figures, statistics and reports would help management in assessing the company’s situation often, allowing them to fluidly adapt their plan to the ever-changing scenarios in which the company is operating, ultimately increasing the company’s financial profit.

Question 5

Define the purposes of reporting and list various types of reports.

**Answer**

Reports are used to express information relevant to a project, a task or an endeavour. They are often the tool used by the people involved in decision making to guide their choices. The purpose of reports is to analyse, summarise and derive conclusions on various aspects related to a business activity.

There are many different types of reports and all answer to different necessities, but for the most part a report would contain:

* The data collected, with details about their sources and gathering method.
* The analysis methodolgy used to extract meaningful information from those data.
* Patterns and incongruences identified by the analysis
* Conclusions which summarise and explain the implications resulted by the analysis
* Reccomendations on how to use the acquired knowledge to the business advantage.

There is a large variety of reports types and it can be arduous to compile a comprehensive collection of all of them, but the following list is proposed to offer at least an overview:

* evaluation reports
* technical reports
* research reports
* business plans
* feasibility reports
* progress reports
* Reccomendation reports.

Question 6

List meaning and examples for the following components within an information system.

Hardware

Software

Web page

Network

Telecommunications

Documents

**Answer**

Hardware – The term hardware is used to refer to the physical components of an information system. The term is quite generic and to provide a better definition it can be useful to take in exam something more specific such as a desktop computer system. In this case, hardware can refer to those visible parts a user is more familiar with, such as the case, the monitor, the keyboard and the mouse, but also to the parts inside the case, such as the CPU, the RAM the disk, the motherboard, the GPU and the power box. But hardware also include the microcomponents that make those pieces work, such as the transistors, capacitors, resistors and bus. Really anything that represents a computer system on a physical level can be reffered to as hardware.

Software – As the name suggests, software is the opposite side of the medal compared to hardware. Where hardware is the physical layer of a system, software is the intangible set of instructions and operations that, acting on the hardware, results in the functionalities that makes a system useful to the users. Following up with previous example, software is the firmware that integrates the basic functions that allow a system to work, the OS that offers the foundation layer for the programs that run on a system and the applications that provide functionalities to the users.

Web page – A web page is a piece of software accessible online. Some applications exists with the specific task of providing a human user with interface and functionalities necessary to access the internet. The most common are the web browsers. On a bare bone level and without taking in consideration the intricacies of this model, when a user access the internet through a browser (also known as client), a request is sent to a web server to fetch the files, hosted on the server, that represent the website that the user wants to access. The server process the request and send the files back to the client, which process them and produces the results on the screen for the user.

The files that concur in creating the website, define the layout of the elements to be portrayed on the screen (html), the images to be displayed, the style (css) and the functionalities (javascript) and contribute to create each of the pages that collectively form the website.

Network – A network in IT can be defined as a set of two or more systems capable of communicating with each other. A network can be local, wide area, private or public according to its setup, capabilities and the technologies adopted.

The client-server model I discussed briefly in the previous answer is an example of network. A machine running a browser is communicating with a machine hosting a web server. The result of this communication is the transfer of data and information from one system to the other. This connection between system is at the core of the concept of network.

Telecommunications – If network is the infrastructure for the transmission of data and informations, telecommunications indicates the exchange itself and the technologies adopted to perform the transmission. The two terms, network and telecommunications, are closely related when used in an IT context.

The data transmission happens through electrical signals, analogically or digitally modulated

Commmon forms of telecommunication are those of mobile phones, radio and television broadcasting, microwave communications, fiber optics, satellites and of course the internet.

Documents – Documents can be better defined by their use than by any description. Documents are used to provide information, evidence or record about objects, persons or events. They can be written, images, audio, video, or any other form or combination of forms. When used in reference of IT systems, documents can indicate specifications, agreements, manuals, legal boundaries and much more.

Question 7

List two more examples in the following Gap Analysis Table.

|  |  |  |  |
| --- | --- | --- | --- |
| Currently in place | Requirements | Gap Y/N | Items needed |
| Manual ‘paper based’ information system | Computerised system | Y | * Computer (Hardware) * Applications (Software) * User training |
| Data collected in spreadsheet | Database | Y | * Computer (Hardware) * Applications (Software) * User training |
| Unresponsive website | Fully repsonsive website developed “mobile first” | Y | * Software professional * Money |

Question 8

What is the impact or risk if computerised system is necessary for the organization which is using ‘manual ‘paper-based information system?

**Answer**

Before considering the risks related to moving from a paper based to a computer based system, it is useful to take in exam the risks associated with the paper based system itself.

Some form of paper based systems have been used by humans for millennia, considering that the first forms of written record that we have today come from mesopotamia and are dated around the year 3000 BC. Various system and methodologies brought improvements throughout the centuries, and yet not a single one managed to perfection the technique in such a way to prevent human errors and to guarantee the safety of the records. An illustrous example is that of the library of Alexandria, forever lost in an ancient fire.

With the advancement of civilizations, the problem became more and more evident. It should suffice to look at the first banks in Florence, which needed a precise, reliable and long lasting system of record keeping, or the English revolution that from the UK spread to the rest of the world and made transferring, recording, organizing and retrieving data more needed and widespread than ever.

But paper was the only option and records kept being prone to error, falsification, corruption, loss and destruction. Even money, since the invention of the banknote have been subject to these same risks.

The invention of computer systems changed significantly and forever the way we store and access information. Automation made the creation, and the backup of information extremely fast and precise, granting reliability and security unprecedented and with the internet and modern technologies, data can be accessed instantaneously from anywhere.

However, the passage from the traditional paper based system to the modern computerised ones involves some potential issues that are worth mentioning.

The saying goes that modern problems require modern solutions and while it stands true, it forgets to mention that modern solutions often lead to new problems.

Firstly, considering the human point of view, the job done by several people before can now be achieved by far less persons (if people are needed at all) leading to a series of ethical considerations that transcend the mere argument of improved efficiency. From an economical point of view, resolving staff redundancy has nothing but an positive impact on the situation of a company, but from a more human perspective, it implies that some people are going to lose their mean of self sustainment.

Information accessiblity also has its own downsides. The analogical nature of paper makes it so that the infromation required is available right from the source, if by source we mean the document where it has been printed or written down. But data, to be meaningful to a human user, need to be processed and presented in a form that is understandable by humans and this can be achieved only by computers set up with the appropriate periferals. If the person needing the information doesn’t have access to the necessary hardware, the information could very well be stored in another galaxy and it wouldn’t make much difference.

Moreover, the hardware can break down or be destroyed in the event of a calamity and if the appropriate counter measures have not been taken, the loss data could be permanent.

Another aspect deserving consideration is that of security. Security breaches are not uncommon and depending on the nature of the data held by a company, the risk of malicious attacks may become significant. Data theft, loss or corruption can have disastrous effects and their prevention can be costly and it rarely is perfectly effective.

All the risks and issues mentioned, and more, have of course solutions that can be adopted, but it’s important that a company is aware of their existence and takes the due precautions to minimise if not eliminate them.

Question 9

What does the reporting allow the management to do? What does Gap analysis report include? What opportunities this report can produce for the organisation?

**Answer**

The role of management is to guide a company, to set its direction and identify its goals. To fulfill this reponsibility, management needs to have all the information that can guarantee a clear vision of the internal situation of the company and of the wider context in which it’s operating.

These information can be provided by reports.

Reports vary in nature and purpose and can span from technical specifications to guidelines and procedures, but they must always be tailored to a specific to be of any use.

Gap analysis can be considered a kind of report.

The purpose of a gap analysis is to identify what the company is lacking to reach a certain objective, in order to develop an effective action plan to fill those gaps. The name gap analysis is fairly generic and that’s because there is not a single specific matter the gap analysis can be applied to. Instead gap analysis is a tool meant to be applied to any goal the company may have set.

Usually a gap analysis would contain the target, or targets a company proposes to reach, the current situation, the implications derived from the comparison between present reality and aspiration, any suggestion the analyst may consider relevant and the conclusions drawn.

Question 10

What are the feedback techniques used in the organization? Elaborate with suitable example.

**Answer**

A review of the documentation produced during analysis usually results in feedback from management. The possible changes to be implemented in the organization are considered before approval is granted. The selection of an option over another one is often caused by a thorough examination of the advantages/disadvantages of each one and by the constraints the company may have.

Advantages and disadvantages can be quantified in terms of performance improvement, return of investment, perceived quality and so on.

Similarly, constraints can be quantified. Budget allocation, human resources and technology and technical expertize are all factors that influence the feedback given by the mangement.

Once the options have been evaluated, management can proceed in define a timeline, to identify the activities and to start allocating resources to implement the action plan.

Question 11

What action plans include? What is a goal of action plan? Produce an action plan based on the following goal.

Develop a website in your company

**Answer**

There is no set standard for the creation of an action plan, but for the most part, an action plan will contain:

* The goal that the plan proposes to achieve
* The activities to be performed to achieve the goal
* Who is responsible of what
* What resources are needed to successfully complete each task
* A timeline defining commencement and expected end date for each task
* Paramaters to define progress in the implmentation of the plan.
* Parameter to define success in the implementation of the plan.

Taking in example the development of a fully custom made website, the following would represent an example of a possible action plan:

|  |  |  |  |
| --- | --- | --- | --- |
| **Goal:** Development of a website. | | | |
| **Activity** | **Responsibilities** | **Resources** | **Timeline** |
| **Gathering requirements** | Analyst | Analyst – 8 rhs - $40/hr – $320.00 | Start 29/11/2020  End 02/12/2020 |
| Gathering client’s requirements   * Set firt appointment with client | Analyst | Analyst | Start 29/11/2020  End 30/11/2020 |
| Requirements Analysis   * Review requirements * Prepare questionnaire * Set second appointment with customer * Refine requirements | Analyst | Analyst | Start 30/11/2020  End  01/12/2020 |
| Feasibility study   * Budget analysis * Second appointment with client * Refine requirements | Analyst | Analyst | Start 012/12/2020  End  02/12/2020 |
| Acceptance criteria   * Define acceptance criteria based on client’s requirements | Analyst | Analyst | Start 02/12/2020  End  02/12/2020 |
| **Design** | Analyst/Developer/Designer | Analyst – 3 hrs - $40/hr - $120  Developers – 4 hrs - $40/hr - $160  Designers 8 hrs - $40/hr - $320 | Start 03/12/2020  End  07/12/2020 |
| * Sitemap | Designer | Designer | Start 03/12/2020  End  04/12/2020 |
| * Technical specification | Analyst/Developer | Analyst/Developer | Start 04/12/2020  End 05/12/2020 |
| * Pages and content design | Designer | Designer | Stat 05/12/2020  End  07/12/2020 |
| **Development** | Developer | Developer 20 hrs - $40/hr - $800 | Start 07/12/2020  End  14/12/2020 |
| * Front end development | Developer | Developer | Start 07/12/2020  End  11/12/2020 |
| * Back end development | Developer | Developer | Start 11/12/2020  End  13/12/2020 |
| * Content entry | Developer | Developer | Start 13/12/2020  End 14/12/2020 |
| **Testing** | Tester | Tester 5 hrs - $30/hr - $150 | Start 15/12/2020  End  15/12/2020 |
| * Black box testing against acceptance criteria | Tester | Tester | Start 15/12/2020  End 15/15/2020 |
| Optimization | Developer | Developer – 5 hrs - $40/hr - $200 | Start 15/12/2020  End  15/12/2020 |
| **Total:** $2070 | | | |

Question 12

What are operational constraints? Factors for privacy of customer information? What internal operating environment should include?

**Answer**

Operational constraints may refer to those boundaries which could represent a limit in the realization of a goal.

They can be the internal policies and procedures of an organization, as well as the external legislation.

Other constraints are represented by the budget available and the expertise of the employee, which could potentially be insufficient to accomplish the tasks proposed.

Technology constraints are a factor that may influence the outcome of a project, or the deadlines provided may deem a project unfeasable.

Privacy of customer information falls under the category of legal constraints. It involves the set of rules, guidelines and laws in place to ensure the safety and secrecy of personal sensitive information that a system may access in order to operate.

Internal oerating environment includes all those factors that exist within an organization, that affect the oprational approach and the outcome of a project.

This factors include the financial resources of the company, the physical, or material resources, the human resources and processes, procedures, policies or software that influence the way an organization carries out its operations.

Question 13

Visit any three of the links listed below for action plans and review the similarities and differences between them using the table provided after the links on detailed exercise.

<https://www.cibc-ca.org/wp/action-plan-sample/>

<https://health.gov/communication/literacy/sampleplan.htm>

<https://www.nwf.org/Eco-Schools-USA/Become-an-Eco-School/Pathways/LEAF/Action-Plan>

**Answer**

* A header that provides information about the document
* A list of goals to be achieved
* The steps to be completed to achieve those goals
* Who is responsible for each task
* A timeline defining when the steps will be imlemented
* Parameters to identify progress and success of the steps imlemented.

Some variances can be encountered. The information included in the header may differ from one sample to the other and the elements in the action plan itself can vary, although the most important parts are common to every action plan, such goals, tasks, responsibilities and timeline, each plan may emphasize or exclude some other elements which are considered less relevant for that specific plan.

The level of detail in which each element is expressed is also different, Some action plan may give a detailed description of the objectives and may be very specific, breaking down each element to prevent any ambiguity, while others offer a more generic description. This can be due to the different audience the document is targeted to. An action plan that involves various departments in an organization, for example, has to be clear and understanble by personnel of each department, therefore a specific, more in depth description is needed to reduce the necessity of any guesswork during the implementation of the plan, whereas the action plan targeted to a single department doesn’t need to specify details that are already well known by the personnel.

Reference

[Please put down any reference book/link here.]

# **Unit Assessment Result Sheet (UARS)**

## **Assessment Task 1 – Unit Knowledge Test (UKT)**

## **Student and Trainer/Assessor Details**

|  |  |
| --- | --- |
| **Unit code** | ICTICT517 |
| **Unit name** | Match ICT needs with the strategic direction of the organisation |
| **Outcome of Unit Assessment Task (UAT)** | |  | | --- | | **First attempt:** |   Outcome (please make sure to tick the correct checkbox):  Satisfactory (S)  or Not Satisfactory (NS)  Date: \_\_\_\_\_\_\_(day)/ \_\_\_\_\_\_\_(month)/ \_\_\_\_\_\_\_\_\_\_\_\_(year)   |  | | --- | | **Second attempt:** |   Outcome (please make sure to tick the correct checkbox):  Satisfactory (S)  or Not Satisfactory (NS)  Date: \_\_\_\_\_\_\_(day)/ \_\_\_\_\_\_\_(month)/ \_\_\_\_\_\_\_\_\_\_\_\_(year) |
| **Feedback to Student** | |  | | --- | | * **First attempt:** |  |  | | --- | | * **Second attempt:** | |
| **Student Declaration** | * I declare that the answers I have provided are my own work. Where I have accessed information from other sources, I have provided references and or links to my sources. * I have kept a copy of all relevant notes and reference material that I used as part of my submission. * I have provided references for all sources where the information is not my own. I understand the consequences of falsifying documentation and plagiarism. I understand how the assessment is structured. I accept that all work I submit must be verifiable as my own. * I understand that if I disagree with the assessment outcome, I can appeal the assessment process, and either re-submit additional evidence undertake gap training and or have my submission re-assessed. * All appeal options have been explained to me. |
| **Student Signature** |  |
| **Date** |  |
| **Trainer/Assessor Name** |  |
| **Trainer/Assessor Declaration** | I hold:  🗹 Vocational competencies at least to the level being delivered  🗹 Current relevant industry skills  🗹 Current knowledge and skills in VET, *and undertake*  🗹 Ongoing professional development in VET  *I declare that I have conducted an assessment of this candidate’s submission. The assessment tasks were deemed current, sufficient, valid and reliable. I declare that I have conducted a fair, valid, reliable, and flexible assessment. I have provided feedback to the above-named candidate.* |
| **Trainer/Assessor Signature** |  |
| **Date** |  |
| **Office Use Only** | Outcome of Assessment has been entered onto the Student Management System on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (insert date)  by (insert Name) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |