**D1 - Analyse costs and benefits**

**Introduction**

In this report, I will analyse the full costs and benefits of the plumbing job. This will contain detailed information on each cost and benefits of the program. I will also conclude and give my opinion on these benefits and costs of the plumbing program.

**Cost**

**-Development Cost**

Development cost is usually what gets the whole company going. The start price determines what is needed for the start price. As the current system is all-manual, we are going to change all of it to digital. This will charge a rate that will make it easier for the plumber and everybody else who uses it. An upgrade in development will make sure the devices are run faster, efficient and much easier. Getting the latest gear will get more features on the new system. For example, if you compare the new Windows 8 to Windows 7, they are many differences of each. Only this section follows up on getting/upgrading equipment. They are other cost, which the user needs to focus on.

**-Stock Cost**

Stock cost needs to be maintained day in and out for the company to run. These stock costs are the output, but they are necessary for the user because they need to sell these that they have brought. For this program, I will need to purchase any excess equipment that I will be using for the company to sell. These items could include the following: copper pipes, chrome pipes, plastic pipes and many more that a plumber uses to sell. As any organisation, they will need to have minimum or maximum stock that is enough for the company to sell. Stock is also needed for the employees to run the system and business. In order for the program to work and run, they need to have stock for it to work.

**-Equipment**

The equipment that is needed for this company to continue this project. I am only getting these new equipment to make it easier for the new user to use. The equipment that is needed is the following:

**Hardware**

***-Windows 8***

*Windows 8 is used for this company because the latest operating system offers always the new features and faster than before. Obviously, the user needs to get used to it if the is not used to the system. However, having new features for this would be a benefit. The features that Windows 8 has the new start screen, new security e.g. picture password, and new games within the system that the user can download. In addition, the obvious feature is it is much faster.*

**-Computer (Dell)**

It is important, which company the user purchases. If I recommend him an unknown company, the user would not know what to do for or how to operate it. A familiar company has features that makes it easier for the user to deal with. For example, if the user has any hardware problems, the user can go on the official Dell site and fix it. He has a computer, but I want to get a new one and this would cost around **£500.**

**-USB**

The main reason I recommended this is because for backup. As I have stated before, Norton does backup for you, but it is important to carry an external storage device to do your work anywhere and for security reasons. Security reasons could be the main reason. This would cost around **£10** for a 32GB USB. It depends, which one they are going to use, but the more, the better.

**-Dell Printer**

A printer is used, because if the user needs to print out anything, he can print it out. The cost of the Dell printer could be around **£200** or more. It could be more depending on, which printer is necessary. However, I think the all-in-one printer is the best. It has a long-term benefit and the ink would need to be monitored.

**Software**

**-Microsoft Office 2010**

As he does not have this system, I will recommend him to purchase this. Office includes several of programs within for it to be suitable. Microsoft Office 2010 is used for this system because if any document that he needs to complete, he will need to use Microsoft Word for it to be complete. Excel could be used for him to be organised. For example, he can create a spreadsheet of how he is doing for himself. Many of the other program could be used for several of reasons and it is important he has this software. Having Microsoft Office would be only one time purchase, but depending on how many computers, you would have to buy it for each to complete any work. One would cost around **£100**.

**-Microsoft Visual Studio 2010**

Microsoft Visual Studio 2010 is used to make the actual program. All the codes will have to be filled in to make it. Maintaining the program will be important as well. Therefore, any mistakes and errors the user finds for the user, he will need to use this program to maintain it or erase any errors. This would cost around **£100 or more.**

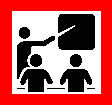
**-Norton Anti-Virus 2013**

As any other computers, anti-virus is needed for any company. Being secure as a company is important. This is because if any malware get into the system, he would need to scan the system to get rid of it. Any PC needs to be secure to protect his files. Having backup would be sorted out as well. If anything happens to the files, backup files would be there. For example, if anyone else deletes the program, the user has a backup program file that he can use. This would cost around **£60** per year to stay protected.

**Overall costs**

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| **Equipment** | **Price (£)** |
| Computer/s | ***£500*** |
| Software | ***£260*** |
| External devices: printer/s and USB | ***£210*** |
| Installation | ***£100*** |
| Daily cleaning and monitoring computer/s | ***£300*** |
| Security | ***£200*** |
| Total Costs:  ***£1370*** | |

**Training**

[](http://en.wikipedia.org/wiki/File:Aforsys_training.PNG)Training any employee takes time to do. They are two choices that I have. Either sending out the employee on training, which costs a lot, or training them on the spot. I will choose to send them out to train. They will gain more qualification if they are sent out. Sending them out is professional and it will take time for the company to do either way, especially working with codes. As stated before, I will hire an expert that will move the company forward for this moment. If any of the other four do not have the expected level, we could send them out or hire any other. This will take time, but the program that will be made will be properly. Another solution could be to send them out before we start the whole process. It will be ideal and not time wasting.

**Security**

Securing the network is one of the biggest factors that needs to be maintained out of the entire network, not mentally (within the computer), but physically. The user can use many software’s that the user can use to protect the inner layer of the network. For example, if any malware enter the network, the anti-virus would need to act fast enough for the malware not to make damage. Essentially, the anti-virus removes it and removes any highly virus that enters the user. In addition, if any person is trying to enter the network, it is blocked, as there is a password for the user to enter. Without the unique password, the user cannot enter the password. This would cost around **£200** for it to be secure.



**Legal Issues**

**Data Protection Act 1998-**

This act was introduced in the 1998s for businesses or any organisation that deals with information, that transfer data needs to be fairly and lawfully processed. This law was set for every employee as this is vital that the employee’s vital information cannot be reach to anyone. Only certain information is taken, to ensure the safety of the employee is harmless. It is supposed to be secure so nobody can get hold of the information. Data has to be confirmed that the data is accurate. This links to my suit business, because certain employee’s information cannot be held with another functional area/employee.

For example, if the any department have all the data for the employees another department asks information about details about the employee. They will give the basics; name, how much they get. Note that that was an example. They can’t give anything else. If the data protection act is misused, they will either get fined, prosecuted. Others can get hold of this vital information and can do anything with it. They will get fined as they have not followed this legislation that was set.

**Computer Misuse Act 1990-**

This legislation was introduced in the 1990s for businesses or any organisation that deals with information, to treat and not misuse information that they provide. For example in my suits business, finance department will deal with PCs which they will be provided usernames and passwords for the computer. This links to my business, because data will need to be secure. If people get access to the data, they might delete it and misuse it. If you get access to the information, it’s committing a crime. This will be needed in a business, because if another employee gets hold of a piece of information that is not relevant to their needs, they will be breaking the law. Some examples of misusing information can be: hacking to another person’s account or material, computer fraud, physically taking someone’s information without permission. According to the link provided below in the reference, if a person breaks this law they could go to prison up to 12 months/ or obtained a fine. These can be some of the issues depending on how high level of committed crime was committed.

**Benefits**

* **Customer service**

Customer service means how the employee treats another the customer. This could be in a bad way or a good way. Obviously, the customers want to be treated and fulfilled the right way. This company needs to remember that the whole point of it is to make the customer happy. To gain customer loyalty, you need to ask them of what they want. The main benefit of customer service is that once you keep your customers happy, they will be ‘loyal’ to you. Remembering this does not cost a penny. You only expect the employee to know that customer service is important. Lastly, this is a benefit because keeping the customers happy equals to the business being successful. This would be completely free. The manager can only tell them that keeping the customer is important, and they should know this.

* **Cutting Costs**

Cutting costs means removing any unnecessary use of anything that is on for it to go waste. For example, turning off the computer when it is not used; do not eat or drink water near the computer; turn the electricity off when not used; and cleaning up for it not to go messy. They are many more ways of cutting costs, but this will benefit the company financially and physically. Financially, because if you turn down the electricity use, it is more likely the outcome of the bill will be lower than expected. He could save a lot of money comparing it to when he didn’t start it to when he did.

* **Ease of use**

It says it in its name, ‘ease of use’. The potential impact that this can do is that new users can find the easier way to do anything. For example, if you compare Windows XP to Windows 8, they are many changes that they have done to make things simpler. Making everything easy is the fundamental part of using the computer e.g. writing a letter. All you can do is send an email; it would be simpler and easier than waiting for the written letter to get to its destination.

* **Increasing Sales**

Increasing sales is a benefit for the company. Having increase in sales will benefit the company by making more profit for it. This will eventually make the brand much more successful and it will be earning more money for it. To increase sales, it will be around **£1000** per year for it to be bigger

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| **Benefit Figures (£)** | |
| Ease of use | **£450** |
| Cutting costs | **£700** |
| Customer Service | **£1000** |
| Increasing Sales | **£1000** |
| **Total Costs:**  **£3150** | |

**Conclusion**

After doing these calculations, it gives me a roughly estimate of how much I will need to spend to get this software running. As it is not as big software, it would not be spent big money on it. Various softwares can be used for this task. Once the program is done, the main aim is for the plumber to run is business efficiently without any errors. They will be no longer any manual system as this is messier and papers can be lost or hard to find. Finding these orders on a computerised copy is easy and another aim for this company is to find it easier as a whole. Making it easier for the plumber would be efficient and it would run much faster whilst more sales would be purchased. The total cost for the company to pay us back would be around £1370. A time would be recommend for the company to pay it back.

*To remember, I work for Dull as a junior software developer in London. The money would be paid back instantly or monthly payments. I am helping this company to erase any errors for the current manual system by changing to computerise the system. The benefit costs is a different matter. The business could save these costs, as it is a rough estimate.*

**Reference**

* <http://tellemworldwide.files.wordpress.com/2011/12/380x300_graph.jpg>
* <http://en.wikipedia.org/wiki/Customer_service>
* <http://www.seattlesteam.com/newsletters/images/10-12-cut-costs.jpg>