Good causes and effects of laptop failures using failure mode and effect analysis...

Question 1

Computers have been embraced by most people due to their benefits like speed of work, a complex storage area hence space saving, and the accuracy of the data and information. Nevertheless, laptops are prone to some failures which can have adverse effects on the organizations and individuals who solely rely on it (Liu, Ashok 165). The failure mode of laptops and the effects they have are all diverse in nature since they are different and affect different soft wares and hard wares in the laptop.

Failure mode

The power supply failure is the most common modes of failures in laptops especially if the battery is a poor store of power. If there happens to be a power blackout in the area, then the laptop with a fault battery will automatically go off.

Effects of failure

The effects of power supply failure are; time wastage leading to low production rates that render a company experience massive financial losses. The overreliance on electric power has led to loss of data if the laptop does not save the work automatically. Another effect would be loss of potential clients and customers, and this can affect the business in the long term since the customers would have lost interest in a company that is mostly affected by power challenges especially if there is no other power option. Their actions lead to the firm registering low sales hence no or minimal profits are made.

The power supply failure also reduces the lifetime of the hard drives making them last for a short period than they should. This means more expenses for the replacements or purchasing a new laptop. Overheating of the laptops could cause system failure since the laptops require to be shut down to allow them to cool to avoid more damage to the hard wares (Jack, Hugh 214). Overheating could also lead to fire damage hence loss of the laptop. Power surges lead to loss of data in the laptop if it had not been saved.

Corrective action

The laptop users should ensure dusting off their laptops to prevent dust which most of the times leads to overheating. Charging the laptop all the time should be avoided since this leads to spoilage of the battery. The fault batteries should also be replaced with new ones that can store charge for a longer period of time.

Failure mode

Operating system failure is related to the challenges when a laptop fails to boot. There are some factors that can lead to operating system failure for instance, attack of the laptop by virus which can only be eradicated by the antivirus. The other factor could be the age of the hard disk which could be too old to function properly (Knapp, Donna 187). The exhaustion of the hard disk can cause a laptop fail to boot. The hard ware failure is of several types for instance, the hard drive failure and the motherboard failure. Hard disk could break posing a challenge of data recovery. Motherboard failure is a great problem especially in laptops since their replacements are always expensive and hard to insert them back

Effects of failure

The effects of the failure are; nonperformance of the laptop at all as it is considered dead since it cannot function. The other effect would be in case of viruses, it can lead to spoiling of some essential parts of the laptop as they are eaten away by the virus. If the parts are not replaceable, then the laptop becomes irrelevance and a scrap. Corrupted files could also emerge as a result of installation of new software, inappropriately shutting down of a program and shutting down of the computer beforehand closing documents. The effects of the hard drive failures are; completely loss of data if the hard disk breaks or it becomes impossible to repair. It takes an expert to retrieve the data resulting to incurrence of more expenses that had not been planned for (Weiss, Joseph 229). The failure of the mother board is the worst since it renders the laptop not functional. Buying another one is additional expenses leading to the decline of the profits. Replacing it is not preferred since it is expensive thus most people prefer to buy another one rather than replacing the motherboard

Correctional action

It necessitates the owner to write off the laptop and buy another one. The laptop could be taken to a qualified IT technician who can be able to rectify the problem though at high price.

Question 2

Laptops failure could be attributed to different causes which in return have negative impacts on both the user and the laptop. The power supply failure being the most common is mostly ignored by most laptop owners as it I

considered a normal thing. It is, therefore, important to educate the laptop users on how to protect their gadgets from power faults. Power supply will automatically affect a laptop in one way or another except the ones that rely on other sources of power like the solar laptops (Liu, Ashok 109). Electric power relates to a flow of current, and it could be dangerous if not well handled. Electronic machines need to be protected from the direct connections with power to reduce the chances of spoiling them through burning.

The parts that are in direct connection with the power will be affected thereby transferring the effects to the other hard wares. Loss of customers would be as a result of failing to meet their expectations and demands resulting to them running to the other competitors in the industry who could meet their demands on time. Failure to meet the customer demands would only necessitate them to look for more alternatives to the products of services being provided. When a computer is shut down unexpectedly, then the data which had not been saved will eventually is lost leading to time wastage as one is forced to start afresh (Jack, Hugh 301). Loss of data which had no back up could lead to loss of important and confidential information which could lead to the firm facing risks like fines if the information is asked by the relevant bodies, and they turn out to lacking it.

The operating system failure is most common in the attack of viruses. These are soft wares that are downloaded in the laptop without the knowledge of the user. It is most common on the internet users who commonly open sites and pages that are not legitimate, hence the introduction of the virus. They cause failure of the laptop to function leading to loss of information. If the

antivirus is not introduced early enough then they affect the laptop to a point where it us beyond recovery. The viruses can cause loss of files hence loss of information rendering it unreliable.

The hard ware failure affects the physical components of a laptop. For example, the hard disk is used to store information and breaking it means loss of all the data and the information in it. The mother board is also a physical component in the computer and it needs care to avoid its loss and breakage (Weiss, Joseph 305). The mother board is complicated since it is complex, therefore, requires expert knowledge to fix. However, even with the help of the help, the mother board turns out to be very expensive and it can at times disappoint even when bought because; it can fail to fit in a laptop.

Laptops should be well taken care of to avoid breakages and information losses. The laptop users must ensure that proper care is employed when handling the laptops since the effects of all the failures are adverse those impact both the finances and the information.

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