Date: April 14, 2024
To: Maria Carman
From: Victoria **AM** suggestions for improvements
Subject: All Washed Up Memo

Working at All Washed Up as an assistant manager was a pleasure. The exemplary teamwork allowed the expansion of our customer base and opportunities for this business to grow are outstanding.

I am submitting this report to outline improvements and enhance All Washed Up. Noticeably, I have been observing the current issues regarding job functions and duties. The intricate and concise details of these observations are in the report and described further below.

Overall, All Washed Up has an extraordinary background, potential, and exponential growth. The issues mentioned in this report show how All Washed Up can be improved for future expansion.

Executive Summary

All Washed Up has a growing customer base and staff since 2012 and with a change implemented in 2016. The company has expanded its information technology functions and ideas with the following steps:

- establishing a website on WordPress
- establishing and handling data on Excel
- establishing social media

However, **issues exist with the current model of expansion**. These include the following:

- single points of failure: Only one person or a group in All Washed Up has access to one of the IT functions mentioned above and security issues.
    - Jane Nelson has sole access to the company website
    - Some employees have sole access to the Excel file only through Maria's computer
    - Employees have sole access to customer data with no security
- potential abuse of data: Employees may take advantage of sensitive data
- Lack of policies and cybersecurity, which could prevent access securely
    - Jane Nelson has logins and passwords for the website. And some employees have access to the Excel file only.
    - If Jane or any employees were to leave the company, the Excel file and website access information cannot be shared with anyone else in the company, leaving the data inaccessible for All Washed Up.

o If an employee were to mishandle sensitive data, the chances of a security breach are increased. Additionally, no policies or security enhancements may increase unorganized teams or suspicious actions.

Solutions to these problems include the following:

- job rotation and cross training policies
- reorganization of IT structure, including one WordPress and Excel account
- implementing cybersecurity and AI applications to secure sensitive data.

If these solutions are implemented, All Washed Up will be in a more secure position for its IT functions and business growth.

The Problem

The current arrangement with the website, Excel, and data security leaves All Washed up in a vulnerable situation. The reasons are as follows:

Single Points of Failure upon IT Functions and security

- Jane Nelson demonstrates her web developer skills to innovate All Washed Up's website well. The problem is that Jane's personal account is used for the WordPress account to create the website. In addition, **only Jane has access to it**. If Jane were to be absent for any reason, no other employee could update the website.
- The employees handled customer data in an Excel file with sensitive information well. The problem is that other employees can access the Excel file only through Maria's computer. If the employees were to leave All Washed Up for any reason, **no other employee could provide access or update sensitive data**. It would affect All Washed Up's data security.
- The employees handle data professionally but may take advantage of accessing sensitive data. The problem is that the Excel file is only on Maria's computer, while the website is on shared computers. If there are no policies or security measures to secure access to any data on any computer, **sensitive data may be mishandled or a security breach without knowing who did it**. The data would leave the company vulnerable to tampered files or hacking.

Potential Abuse of Data

If any employee leaves the company on bad terms with the company or individuals in the company, then the sensitive data may damage the reputation of the company. Currently, this abuse has not happened at All Washed Up. Nonetheless, it is key for future business practice to

prevent this possibility by giving proper advice, communications, and strategies to overcome this issue.

Sykes, T. A., Venkatesh, V., & Johnson, J. L. (2014) mentioned in the solutions below argues that an effective communication, internal controls, and policies within the organization can alleviate an employee's sudden leave of absence and prevent taking advantage of sensitive data.

The current arrangement at All Washed Up is illustrated in Figure 1. The access for each function is demonstrated below:

Figure 1

IT Organization at All Washed Up

Employees		Jane Nelson	Employees
Shared Computers	⟺	Website	Excel

The problem illustrated above shows a *single point of failure*. If only one person or a group finishes the task and cannot access sensitive data on the other computers securely, then the absence of that person can make it difficult to overcome this issue.

Suggested Solutions

These strategies can mitigate the vulnerabilities described above:

Cross-Training and Job Rotation Policies

Jane can be trained to update the website, employees can be trained to update the Excel file, and both can be trained to swap roles if one were to be absent. A few policies implemented to cross-training by Olivella and Nembhard (2017), explains how employees can be cross trained to handle different roles by following these five policies:

> *Minimize cost* is the total number of tasks carried out, with constant cost across tasks. *Maximize specialization*, are specialized workers trained in no more than a certain number of tasks to minimize cost. *Equal cross-training*, least cost when worker must have the same cross training level. Two multi-level policies: maximize specialists given a minimized training cost and Equal cross training given a minimized training cost… Results may provide an improvement in robustness. (p. 80, 87)

All employees could learn each other's roles to handle All Washed Up's website on WordPress or the Excel file. Implementing these policies can allow employees to have access to different

positions and computers for an unexpected outcome such as being absent. This also promotes better policies for teamwork and cross-training employees at a cheap cost.

Moreover, this can benefit the company by providing access to other computers instead of only one computer when accessing and updating data. And the AI Application as discussed in one of the headers below would benefit from this.

Reorganization of IT Structure and All Washed Up Accounts

All Washed Up can be made into four structures with subcategories: **Cross training; Policies; JCP; Shared computers → AI application → Job interaction; Teamwork; Task; Performance → Website; Excel**. The first and second structures will provide proper security measures and will be discussed more in the next header. While the third and fourth structures can provide better job rotations. Moreover, Jane can operate the website with WordPress, and employees operate as a team for the Excel file.

In addition, All Washed Up should have one official and professional account for WordPress and Excel to only be accessed within the company for all computers. No personal email addresses or other work emails should be used to log into the account.

As the owner, you would have administrative access to the account and the AI application to adjust privacy monitoring. The computers would all be shared together, and employees would have administrative access to the website and Excel securely. Hernaus, Černe, and Škerlavaj (2021), implies that utilizing the first and third structures in the company can improve Job citizenship performance (JCP) and organization as follows:
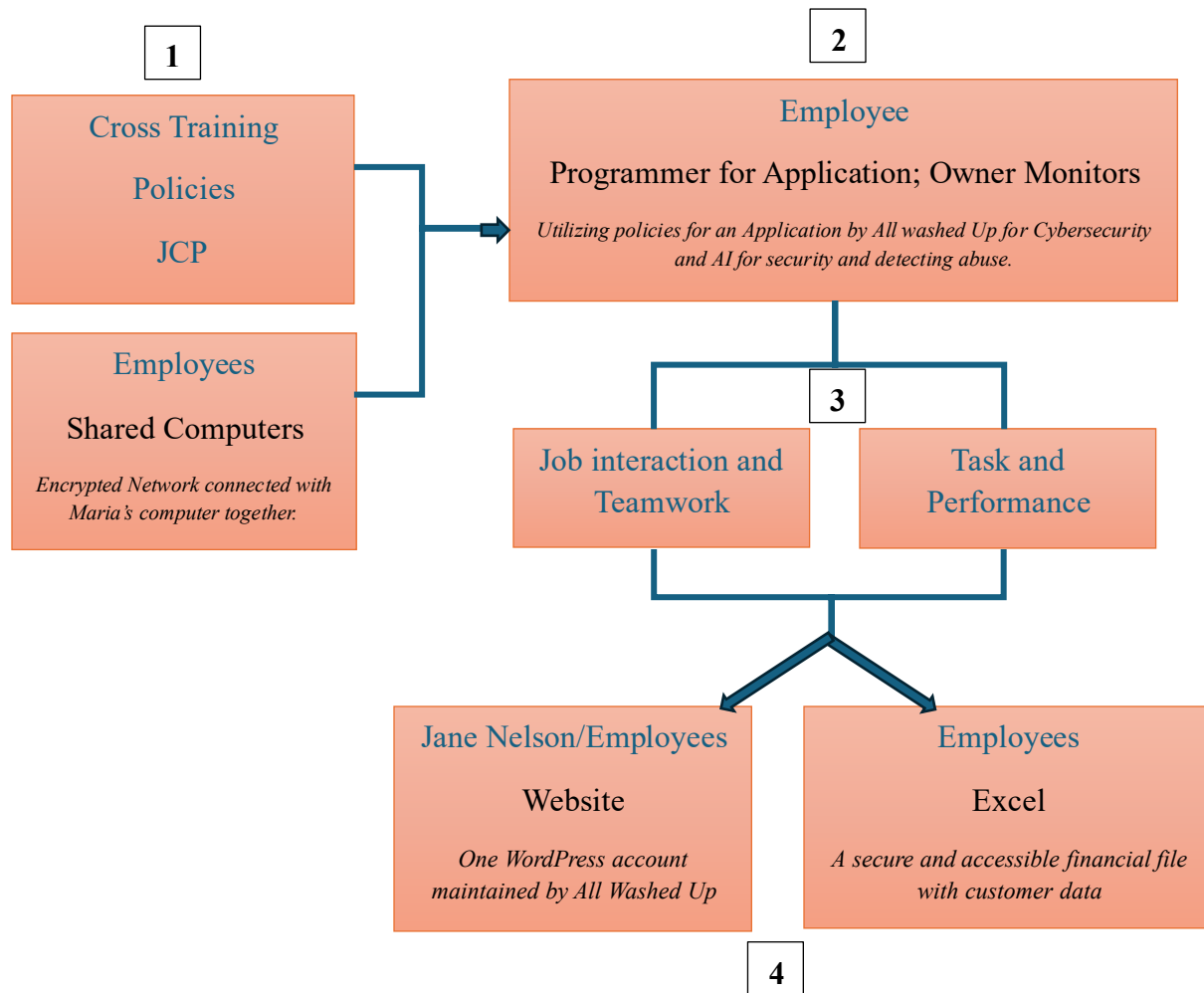
> Job interaction positively increases JCP if implementing system-wide cross-training to improve relationships among coworkers or between leaders and followers. This develops new perspectives of their job positions… Understanding the work environment with JCP, may increase work effort beyond formal job requirements. (p. 627-630, 637, 638)

Implementing this can help structures two and four regarding securing the shared access of the files or website. The argument is that by going through the policies and changes will develop better organization and security when different employees access and update the data.

Moreover, proper advice to employees can help overcome unexpected events. Sykes, T. A., Venkatesh, V., & Johnson, J. L. (2014) imply, "Workflow advice teaches employees of unexpected activities. Software advice teaches system functionalities, system-generated errors, and system constraints. The results suggest positive changes to job performance" (p. 54, 55, 63). This explains advice with proper cross-training can help overcome if an employee is absent or other problems the employees may encounter. And this will allow the employees to switch job roles on any of the computers securely. Figure 2 is all the revisions of the IT structure.

Figure 2

Revisional IT Organization at All Washed Up (Structures 1 to 4)

1

Cross Training

Policies

JCP

Employees

Shared Computers

Encrypted Network connected with Maria's computer together.

2

Employee

Programmer for Application; Owner Monitors

Utilizing policies for an Application by All washed Up for Cybersecurity and AI for security and detecting abuse.

3

Job interaction and Teamwork

Task and Performance

Jane Nelson/Employees

Website

One WordPress account maintained by All Washed Up

Employees

Excel

A secure and accessible financial file with customer data

4

Cybersecurity and Monitoring

As the owner of All Washed Up, you should establish proper security measures and policies. This section provides more details with structures one and two as discussed in the IT restructuring. Currently, All Washed Up has a few vulnerabilities with securing sensitive data and employees taking advantage of it. Revising the arrangement allows for situations in which you might need to access the data if it is misused and securing data for all computers.

Domashova, J., Kripak, E., & Pisarchik, E. (2022) explain using AI to monitor actions of employees and securing data. It features "monitoring data and credit; algorithms of machine learning identify suspicious actions of employees. As a result, the Balanced Baggin algorithm can detect employee actions related to violation of banking procedures or theft of customer funds" (p. 112, 117). As the owner you can be an administrator of the AI application for securing sensitive data and the company. It will be programed by an employee you are hiring to build and update this application. If both Jane and other employees are absent, this will provide security for the changes when other employees take the role. To reassure the employees about privacy concerns, this application only monitors the IT structures such as the website and Excel within the company.

Moreover, AI applications can also secure Excel files through cryptography. It encrypts Excel files for security, and it also prevents file tampering. Wai, H. Y., & Nwe, K. M. (2009) explains, "Microsoft Word or Excel are encrypted and decrypted using DES and RC5 algorithms with a secret key and stores the time and sizes. Choosing the proper high-performance networks to transfer data can enhance performance and security for files" (p. 3,4, 6). It also allows the employees to work together without needing to worry about if the data is leaked out. If an employes were to be absent, this would also allow a different employee to take over the position while having access to it securely. Therefore, these changes will benefit the company greatly.

Conclusion

All Washed Up is a unique and excellent car washing company. It has grown exponentially since 2012 and an outstanding update by you in 2016. You as the founder and the rest of the employees should be proud of the achievements made for this company.

Moreover, All Washed Up progress has also gained some vulnerabilities. For instance, the organizational structure has resulted in only one employee or a group who can perform a pivotal function for the website and Excel. Additionally, security measures should be taken for potential tampering of data.

By implementing rotation policies, cross-training, and security measures will allow for these functions to be performed by more than one individual securely on any computer. A reorganization with the establishment of four units and subsections can complete this. The first unit contains cross-training, policies, and JCP. The second contains the AI application. The third contains job interaction, teamwork, task, and performance. And finally, the fourth contains an arrangement with the website and Excel so that All Washed Up has one official account for each. Therefore, these changes ensure that important functions will continue, and that data is securely accessible for pivotal roles in times or absence or emergencies.

References

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