Chapter 2:

Challenges Due to the Reliance on Manual Processes and Human Error: The Use of Technology in Companies

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ABSTRACT
When the processes to produce the financial reports are done manually by humans fully, it leads to human error in accounting. There are a lot of difficulties, burdens and losses that are caused by human error in accounting. The process is long and a bit complicated that requires humans to do it manually. Therefore, it increases the chance of human error or fraud. It also leads to taking extra time and energy to do checking and correcting. Living in this globalized era, there are things that have changed to suit the modernization and human's need. In this new era of technology, all industries are supposed to take advantage of the technology. Data automation, blockchain, cloud computing and artificial intelligence (AI) are the several technologies that are the latest and advanced that could improve the living and reduce the work burden.

Key Words: Manual, Human Error, Technology

1. INTRODUCTION

According to Lauren Oliver (2024), she stated that it is important to have the financial reporting for companies and investors. The reason for having financial reporting is to display the financial performance from time to time to make decisions and to avoid fraud or money laundering. The documents that are included in financial reporting are cash flow statements, balance sheet, income statement and profit or loss statements.

Before getting to the stage of reporting, there is a lot of manual documentation or processes that need manpower to do so. From issuing invoice, bookkeeping, and keying-in, it requires at least one accountant to manage the processes. When there are a lot of processes that require humans to do manually, it is exposed to human error. For example, data entry errors, the decimals are being misplaced (NetSuite, 2022).

Moreover, if the person in charge is leaving suddenly, the company will have a huge burden of work as the sales and purchase transactions happen daily. Also, when there is only one staff who is in charge of a particular thing, and he quits, it is hard for other staff to replace the skills. To find new staff or to train the existing staff requires some time. Even just a day of procrastination in doing the documentation, the work burden increases as the day goes by (Christiansen, J., 2019).

Similarly, in my current workplace, an Executive Accountant had just resigned. Only her doing the Accounting Receivable at that moment. After she leaves, the team members have to catch up on the work and learn the accounting skills by themselves. This has caused a lot of time and energy to be spent on one particular task.

To add more, the tasks involved in doing the one transaction have a lot of manuals. The customer will deal with the Sales and Marketing department regarding the order. Then, the order will be handed to the Kitchen department to cook. They will submit the ingredients they need to fulfil the order from the customers. Then, the Purchasing department will do the procurement and purchasing. After that, the upper-level management will approve the Purchase Order. After the ingredients have been received, the Finance department will proceed to payment by issuing the payment voucher. There are a lot of processes that involve humans that will lead to human error. Therefore, if the accounting process is more dependent on humans, it leads to more human errors and difficulties.

2. DISCUSSION

According to the recent news dated 26 July 2024, The Edge has produced an article about the human error that happened in the United States of America (US). Another US$2 billion of the accounting error has been found by The Pentagon. The accounting errors that were found were wrong in calculation of the bullets, missiles and sent the wrong equipment to Ukraine. It has caused US$2 billion to be at loss due to this accounting error. In the year 2023, the staff at the Pentagon stated that the staff used the word “replacement value” instead of “depreciated value” to organize a massive number of materials to deliver to Ukraine. It has led to more than US$6.2 billion being sent to Kyiv (Stone, M., 2022).

Besides human error in bookkeeping and calculations, humans are also exposed to the lack of ability to detect cybersecurity threats such as malware, virus, trojan, spyware and more (Kaspersky, 2019). Humans tend to make mistakes and lack knowledge of cybersecurity threats. They might get trapped in those cybersecurity attacks because they are not familiar with it and human’s brain does not automate when it comes to things that happen occasionally (Noor Baharin, A.R, 2024). According to Isabelle Francis (2024), the weakest link is humans. The errors that humans tend to make, raise a concern on humans being the target of the cybersecurity attackers. The reported cases of cybersecurity in Malaysia for the first quarter of 2024 only are 1,309 fraud cases. From the last quarter, the number of cybersecurity cases amounted to 3,705 cases in total and the previous year was 5,917 cases. According to Anna Fitzgerald (2023), she mentioned 73% of data breaches that include human components such as human error, misusing privilege, stealing credentials and social engineering in the year of 2023.

As specified by Anna Fitzgerald (2023), there are several factors that might be the contributors to human error. The significant factors are multi-tasking, poor training, faulty memory, and poor communication. When doing multitasking, the staff will switch one task to another task or do more than one task simultaneously. The productivity will decrease up to 40% and the percentage to make mistakes will increase. Next, humans are exposed to error when they receive poor training. They will do their job up to the level of their knowledge and skills, which might lead to long-term complications. Additionally, faulty memory. When the employee is dependent on the brain, the exposure to human error is bigger. This is because of the inconsistency in human nature, unlike the program or computer. Additionally, ineffective communication leads to human error. This is because the work done does not meet the requirements of the desired. Therefore, human error causes time, energy and resource wasting.

3. RECOMMENDATION

Even though human error is difficult to avoid, with a good strategy and practical plan for short-term and long-term, the human error would be lessened to the very minimum. Each problem has its own solution. Depending on the person in charge to make the decision to which solution would be the best to overcome the problem or lessen the risk. When the problem has been overcome, the work and the environment would be more productive. This is because there is no additional job to correct the error or mistake that has been made. Human error should not be ignored or be taken care carelessly because it may lead to the company’s failure or bankruptcy (Talha, A. G., 2023).

According to Fitzgerald, A. (2023), she suggests using the technology to reduce human error, which is data automation. Data automation is the technology as the tool of software in processing the collection, organization, and analysis of data (Johnson, L., 2023). If tasks routinely happen for every day or every week, using data automation will be a big assist to decrease human error. By entering the data for the first time, it will then automate. The typing error, misstatement, or key-in in the wrong classification can be eliminated. This is because data automation can decrease manual tasks that would minimize human error.

Data automation also will reduce the workload along with shifting the focus on the more significant tasks to make humans less on multitasking (Fitzgerald, A., 2023). According to Tehreem Naeem (2024), there are 8 steps to apply data automation in the company.

The first step is to find your goal. For instance, finding the company’s needs. To fasten the process of issuing purchase order (PO) to the suppliers. The second step is to categorize the data and give access to which department is in charge so that the system will run smoothly. The third step is to decide which data want to be transformed and where the destination would go. The fourth step is to choose the suitable tools of data automation to be applied in the company. The fifth step is applying the data automation and doing the test on the system. The sixth step is to arrange the time to update the system to ensure the smoothness of the system.

The seventh step is to follow the performance of the system. The eighth step is to analyze and judge the system whether it meets the company's goal so that the system will not depend on manual labor that is exposed to human error. Hence, the usage of data automation will give a reduction in human error.

Moreover, cloud computing will be a great assistance in reducing human error. Cloud computing is the computing service that involves storage, software, intelligence and more. It also enables employees to have a flexible place to work by making it accessible anywhere. Which can lead to productivity in working on a particular task (Susnjara, S., & Smalley, I., 2024). By using cloud computing, the data will be automatically backed up safely. Even when cybersecurity threats happen, at least the data loss is not a significant amount because the data is already being backed up securely by the cloud. Data that occurs within the business is important and confidential. So, losing it to the third party is dangerous (Fitzgerald, A., 2023). Therefore, by having data automation, it is able to minimize the complication of human error.

On top of that, effective communication is a significant thing to be focused on. There are a lot of online platforms that employees and employers can communicate with. However, using various platforms to communicate will make it less efficient because of the unorganized communication system. When the communication happens in a single platform, the information received could be easily traced (Fitzgerald, A.,2023). By using the latest technology of blockchain, the communication could be improved by retrieving the unnecessary things to communicate. So, when a transaction happens, one person can update the system and everyone in the team can see the update. This is because blockchain technology is a real-time transaction. Meaning, if one is doing the transaction, the transaction will be updated on to all the person in charge's devices. Therefore, there will be no double key-in of one transaction. Moreover, there will be no fraud because the transaction is transparent and cannot be edited or deleted (Hayes, A., 2024). Hence, it can improve the communication system by eliminating the minor information.

4. CONCLUSION

In conclusion, the accounting field is currently facing significant challenges due to the reliance on manual processes and human error. The use of technology, such as data automation, cloud computing, and blockchain, is important in reducing human errors and reducing the burden on workers. Human errors in accounting processes can lead to financial misstatements, as evidenced by recent cases of accounting errors resulting in substantial losses, such as the US$2 billion error at The Pentagon. Additionally, human error is also a vulnerability in cybersecurity, with reported cases of fraud and data breaches attributed to human factors. To address these challenges, it is imperative for companies to prioritize the implementation of technology-driven solutions, such as data automation and cloud computing, to reduce human errors and enhance efficiency. Data automation can streamline repetitive tasks, minimize manual errors, and allow employees to focus on more critical responsibilities. Cloud computing offers secure data storage and accessibility, safeguarding against data loss and cybersecurity threats. Furthermore, the adoption of blockchain technology can improve communication processes by ensuring transparency and real-time updates, thereby minimizing the risk of human-induced errors. In conclusion, embracing technological advancements and prioritizing the reduction of human errors through automated processes is essential for the accounting field to enhance accuracy, efficiency, and security in financial reporting and data management.

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