

University of Arkansas, Fayetteville

ScholarWorks@UARK

Finance Undergraduate Honors Theses

Finance

5-2023

The Opportunities and Challenges of Automation: Insights from an Internship Experience at UltraSource LLC

Olivia Madden

University of Arkansas, Fayetteville

Follow this and additional works at: <https://scholarworks.uark.edu/finnuht>



Part of the [Business Analytics Commons](#), [Corporate Finance Commons](#), and the [Finance and Financial Management Commons](#)

Citation

Madden, O. (2023). The Opportunities and Challenges of Automation: Insights from an Internship Experience at UltraSource LLC. *Finance Undergraduate Honors Theses* Retrieved from <https://scholarworks.uark.edu/finnuht/97>

This Thesis is brought to you for free and open access by the Finance at ScholarWorks@UARK. It has been accepted for inclusion in Finance Undergraduate Honors Theses by an authorized administrator of ScholarWorks@UARK. For more information, please contact scholar@uark.edu, uarepos@uark.edu.

**The Opportunities and Challenges of Automation:
Insights from an Internship Experience at UltraSource LLC**

by

Olivia Ann Madden

Advisor: Sergio Santamaria

**An Honors Thesis in partial fulfillment of the requirements for the degree Bachelor of
Science in Business Administration in Finance**

**Sam M. Walton College of Business
University of Arkansas
Fayetteville, Arkansas**

May 13, 2023

Table of Contents

Introduction.....	3
My Internship Objectives.....	4
Weekly Journal Entries.....	4
Opportunities of Automation.....	11
Challenges of Automation.....	12
Conclusion.....	13
Works Cited.....	14

Introduction:

Throughout the summer of 2022, I interned at UltraSource LLC, a Kansas City-based company that makes meat-processing equipment and operational supplies. As a finance intern, I was able to directly see how money moved throughout the business and learn more about the different segments of the meat industry.

Prior to the start of UltraSource LLC, the meat industry in the United States was run by butchers who did everything themselves; from slaughtering the livestock, carving the meat, and hand-making sausage casings. The carcasses and sausage ropes would hang around their shops, as there was a lack of refrigeration tools available. The Koch brothers, whose work led to the founding of UltraSource LLC, started by selling butchers their tools and equipment, and then let innovation guide them to create a booming business.

In 1889 The Koch Brothers' Supply Company was founded, and they realized the impact that lack of refrigeration had on butchers, so they started manufacturing coolers. By 1949, the refrigeration division was sold, and in 1965, they started selling vacuum packaging equipment imported from Germany. About 30 years later, Koch designed their own packaging equipment and became the first U.S. manufacturer of double-chamber vacuum chamber machines. This soon grew even bigger, with different packaging and labeling equipment sold in addition to the chamber machines. Fast forward to 2011, they expanded to selling tray sealers, and then by 2012, Koch Equipment LLC and Ultravac Solutions combined to create what is now UltraSource LLC. Since becoming UltraSource LLC, manufacturing Rollstock machines, a more efficient and cost-effective machine, has been the biggest innovation. Directly from the UltraSource LLC website, their mission has been:

“As our customers grow and change, we also grow and change to offer different products and ideas. Though change can be painful, it has always been our driving force to give our customers value they appreciate. By offering innovative products, at an acceptable price, with great customer service, UltraSource continues to move toward a successful and bright future.”

Now, UltraSource not only provides solutions for the meat industry, but also for seafood, produce, poultry, dairy, and pharmaceutical industries with the versatility of their machines. They provide customized solutions for companies big and small, whether they are in Kansas City, another state, or even another country. Members of the UltraSource team include individuals with animal science degrees and PhDs in meat processing, allowing them to collaborate to solve even the most complex issues. One of their biggest ways to educate employees and potential customers is the “UltraSource Academy”, which is run by meat scientists, where they provide informational seminars on meat industry trends and construct live demonstrations of their products.

I joined UltraSource LLC as a finance intern in their accounting department. They had recently appointed a new chief financial officer, whose goal was to reduce paper completely by automating all vendor payments and customer invoices. My job was to assist with that, as well as work on ad hoc projects given to me by the financial controller. Through that, I was able to see the impact automation had across departments and learn how the business runs to remain profitable since they are not a publicly traded company. Though I was the only finance intern brought on that summer, there were multiple other interns spread across the company, so

together we were provided “lunch and learns” from every department including HR, sales, and all the different representatives of each type of machine. We got to join in on a live demonstration from the UltraSource Academy and visit a slaughterhouse that had bought all its equipment from UltraSource to visually see how the products are used. This aided in my knowledge of the meat industry, as I realized that many segments can be targeted: from safely killing the animal, to properly carving the carcass, to producing the different cuts of meat, to finally creating labels for the final product.

My Internship Objectives:

Before starting my finance internship at UltraSource LLC, I had some personal learning objectives. This included learning how to navigate working in a corporate environment, as most of my experience prior had been in a retail setting. Secondly, I wanted to truly see how a company runs and the impact finance has on that. During my internship, I created additional objectives for myself once I figured out what my goals were for that summer. My first was to automate all vendor and customer processes; this was so that the chief financial officer would not have to sign another vendor check again and the accounts receivable team could increase efficiency by lessening the number of customer invoices that had to be mailed. My second was to gain more knowledge on how UltraSource makes its money and where it goes, through assisting with the month-end close each month and viewing all the different financial statements of the company. Lastly, I wanted to learn about the meat industry, such as who UltraSource’s client base was and how the different machines worked in different spaces. As someone who consumes meat, I wanted to know more about how it goes from a live animal to the refrigerated section of a grocery store.

Weekly Journal Entries:

Week 1 Journal Entry: *May 23-27, 2022*

This week I got to acclimate myself in the UltraSource office by first getting to know the other interns, then doing HR onboarding, and lastly meeting the finance team. Before my start, the company had been reaching out to its vendors to receive their banking information for ACH payments, so I started an Excel sheet with all the information given thus far. I got to eat lunch with my main supervisor, the financial controller of the company, where he told me that the department is more accounting-based than financial, but since he has a master’s in finance, he tries to include financial-based thinking, such as looking towards the future and switching from Excel to making visualizations in Power BI. The lunch and learn this week was with the engineering department, where they talked about how the company started and what kind of thinking goes into technology that involves food. I started the week off with some simpler tasks, such as: categorizing paper invoices and stapling them together, uploading invoices to Amazon, since UltraSource uses them as a third-party vendor to sell equipment pieces, and lastly, looking at accounts with no recent activity on the CRM software and switching them from active to obsolete to create a more accurate client list. To finish off the week, I took the current data from the UltraSource Academy ticket sales to create a visualization displaying how much the customer paid for their ticket versus how much money that customer has spent on UltraSource equipment to date. The reasoning for looking at this was because sometimes the sales team will

give out free tickets to the Academy, so the controller wanted to be sure that those getting free tickets are receiving them because they have done previous business with UltraSource.

Week 1 Reflection: *What did you learn this week?*

This week I learned more about how the company has transitioned through time. The purpose of the UltraSource Academy in prior years was to get as many customers through the door as possible to come in and see the different machines and the products they produce. I would compare it to how ice cream shops provide free samples in the hopes that customers will then buy full-sized ice cream. Now with new upper management, the finance team was put in charge of viewing the current metrics of the Academy and then later making decisions on possibly increasing the price of a ticket to make the event profitable. I also learned how UltraSource went from importing machines from Germany and reselling them in America to finding the right engineers to make new equipment in-house and then selling that instead. Though the week was mostly informational, I am glad I got a project to work on and was allowed to hone my visualization skills.

Week 2 Journal Entry: *May 31-June 3, 2022*

The second week was the week of projects. In addition to adding more vendor banking information, I also created a new spreadsheet with customer remittance emails to allow for paperless invoicing. I got to view the general ledger report and was given the task of highlighting any irregularities, such as seemingly large amounts or discrepancies between months. Along with that, I assessed the profit and loss statement both in Power BI and on paper to make sure all the numbers matched. I assisted in the May month-end close by finding big-dollar invoices and seeing what the charges were for them. UltraSource works with a consulting firm to check their data, so I found differences between the consultant's balance sheet and the balance sheet that was in Power BI to ensure all the data was aligned. This was the first week that I got to experience inter-departmental work, by being sent the marketing budget spreadsheet and comparing that to the current marketing costs thus far. The owner of UltraSource had bought the land the main office and manufacturing warehouses are located, but additional buildings were needed to store all the new manufacturing equipment. The last project I had this week was comparing the costs of expanding the current space, which would be costly due to unlevel land and trees in the way, versus buying a whole new space altogether and starting from scratch. I also continued with my Academy visualization, by calculating the average cost per person for the Academy from 2018 to 2022. The vendor ACH information project also accelerated with me getting to join in on a meeting with the company's Commerce Bank representative to understand how to import the Excel sheet into the ACH template on the Commerce Bank website. Lastly, the lunch and learn this week was with the parts & processing team, who explained how the machines function.

Week 2 Reflection: *What did you learn this week?*

The main thing I learned this week was how to read financial statements, as I had only seen balance sheets in my accounting classes. I'm glad I got to view the financial statements, as they were relevant to what I was doing, and I got a better understanding of where the money UltraSource makes goes. I also learned the implications of running out of space, since both

expanding the current area and starting a new build would be costly options. This week taught me some of the complications of automation, as the vendor information Excel sheet had to be formatted in a very specific way to be imported correctly into the Commerce Bank website. Overall, this week forced me to aid my time management skills, since I had a lot of projects that needed my attention and only a limited time to do it.

Week 3 Journal Entry: *June 6-10, 2022*

As per usual, I continued my current projects and started every day by inputting new vendor and customer information into my spreadsheets. I began contacting some of the vendors to see if they accept ACH payments, or if they had an online portal where payments could be made instead. In addition to the Excel spreadsheet, I also had to put in codes for vendors and customers that were now paperless in the CRM software, so that when the financial controller ran his report, we would be able to segment customers and vendors into who was paperless and who was not. As for new projects, I was provided an inventory list of equipment and parts that had been sitting in the warehouse for over a year and was tasked with reaching out to different departments to see if they knew anything about that equipment. Based on their responses, some inventory was idle due to COVID and was waiting to be shipped, some were already paid for and waiting to be shipped, and some were so old that they had no idea why it was still in the warehouse. UltraSource receives most of the materials used for operational supplies imported from China, which means that the shipments must go through customs on their way to the United States. Following the pandemic, parts related to food production were eligible for tariff reductions upon entrance into the states. I was tasked with looking at the freight invoices from the past year up until now and calculating the percent taxed on them to ensure that the right shipments were under a certain percentage, as allowed by the new import tax laws. Unfortunately, sometimes issues arise at customs, so the company must send an appeal for shipments that were wrongly taxed to be refunded the difference. With my calculations, the controller was able to have an updated list to know exactly which shipments to appeal.

Week 3 Reflection: *What did you learn this week?*

Through the freight and inventory projects, I was able to gain a better understanding of supply chain issues in the United States following the pandemic, and the importance of resource management. Many clients of UltraSource equipment are smaller warehouses or butchers in the Kansas City area, so they were heavily impacted by the pandemic. This meant that they may have placed an order for a customized machine, and then no longer could pay for it, so UltraSource had to either take off the customizations and try to resell the machine or find the right company to sell it to that also could benefit from those customizations. This led to equipment remaining in the warehouse with no one readily set up to buy it. Additionally, there have been supply chain disruptions, so a lot of equipment had been sitting in the warehouse while waiting for additional parts needed to be added to it before it could be sold. This is where resource management comes into play, as it was important for us in the finance department to know about inventory not yet sold because until it is sold, it is burning a hole in the company's pocket.

Week 4 Journal Entry: *June 13-17, 2022*

This week I got to work more with accounts receivable and scanned customer checks into the banking website, ensuring that the amount scanned was equal to the amount received. I also added all the information into the CRM software, so that all those payments would be there when the reports were eventually run. I also started a new spreadsheet with vendor portal login information, so that anyone on the finance team could easily find the login credentials if need be. The lunch and learn this week was with the human resources team, who reviewed our resumés that we had applied to the internship with, which was helpful since they view tons of resumés in the duration of their career. All the interns took a site visit to Hertzog Meat Co. in Butler, Missouri. We took a tour of their facility, starting in their store where they sell fresh meat. We then passed through where the meat is dry-aged in a climate-controlled room, along with the room where the meat is carved into different cuts or combined to be ground beef. We also saw the process of how the cattle are killed and how a member of the FDA visits to ensure that all health and safety protocol is being followed. Lastly, we saw the meat go through the different machines to become ground beef and then later be packaged with a label displaying the weight and price of the meat. Hertzog uses all UltraSource equipment, from their machines to the knives and boots that they wear. The site visit ended with us at a grocery store, where the head of the UltraSource kill floor team explained to us the different types of meat and dairy packaging and the effects it can have on the look and perishability of the product.

Week 4 Reflection: *What did you learn this week?*

This week gave me an insight into the actual process of starting with a live animal and turning it into a product that can be sold. Specifically for cattle, the animal must be slaughtered in a particular way to be considered FDA-approved and safe for consumption, otherwise that meat cannot be sold in grocery stores. Seeing how sterile the slaughterhouse was made me feel much better about the meat that I consume daily. I also got to see firsthand how UltraSource can work with a client and turn their empty space into a fully functioning slaughterhouse and meat processing facility. Hertzog Meat Co. is run by two brothers with a background in farming, but with UltraSource's help, they were able to start selling their meat to different Kansas City restaurants, local grocery stores, and regular consumers. Additionally, a customer like Hertzog is continual, as they constantly place new orders for operational supplies and in the long run could buy more equipment as their facility grows. Had we not gone on the site visit, I would have never understood how much of a process selling meat really can be.

Week 5 Journal Entry: *June 20-24, 2022*

I continued working on setting up vendor payment portals and ensuring that each account was set up on autopay and paperless billing, along with assigning vendor portals to a certain bank code in the CRM software. I also made sure that the vendor names in the Commerce Bank template matched how it is in the CRM software so that it would be more efficient when a report is run to find them alphabetically in the bank portal. My main task this week was assessing large purchase price variances of parts that UltraSource buyers consistently order. I had direct meetings with the manufacturing and engineering teams to see if they knew why prices were rising on certain items and if that rise was just temporary, or likely to remain. If a higher cost

was likely to remain, the financial controller had to cost roll and make the current cost, which is the higher cost, the new standard cost, which is what is used to calculate order totals. Lastly, we had two lunches and learns this week. The first was with the operational supplies team, which was very fitting considering our previous site visit. Through their presentation, I learned all the different supplies UltraSource sells. The other presentation was by the labeling team, where they demonstrated how customizable a label can be and how it can fit onto the product in different ways.

Week 5 Reflection: *What did you learn this week?*

This week taught me the importance of cost management and keeping information up to date. My manager stressed the importance of proactive thinking and not reactive thinking, so he wanted to tackle the large price variances head-on. It was important to know why costs were going up so that buyers could assess whether it was worth paying the higher price or trying to find a cheaper alternative somewhere else. Additionally, if the price increase was temporary, it was not worth making it the new standard cost and having to lower it later. It is important to keep the information up to date to ensure that purchase orders entered in the ERP software provide accurate costs based on the prices of items that are built into the system. With the aftermath of the pandemic bringing shortages of items, the cost of steel went up, which is what most of the parts ordered were made from, hence the higher prices. Though you could find a cheaper price somewhere else, UltraSource prides itself on quality and did not want to risk buying lesser-quality parts just to save money. The issue with the rising prices and ensuring high quality means that UltraSource will have to increase the price of their machines since they now cost more to make them.

Week 6 Journal Entry: *June 27-July 1, 2022*

This week I did more administrative tasks than large projects. I posted checks on the bank website and sorted through invoices based on the payment terms since each type is mailed a different way. I also vouchered service reports into our CRM software, so that charges to customers for fixing their equipment can be added to that customers' account. I did some freight reconciliation, which involved me looking at freight bills in the file system and making sure that the purchase order numbers and amounts on those directly matched the info in an Excel sheet. There were some vendor outstanding checks, so I was tasked with reaching out to the vendors to see if they ever received the check or if it somehow got lost in the mail. As for larger projects, I assisted with the June month-end analysis by comparing the budget to what was spent. I also looked at a report with ungrouped transactions, which are transactions that do not have a type of classification such as technology, recruiting, manufacturing, etc., and tried to look at the invoice to classify it correctly. Lastly, this week I got to sit in on a live Academy demonstration of how to stuff pork loin and listen to presentations about meat science and vacuum tumbling. Following the Academy, the whole company got to try all the meats that were produced and take leftovers home.

Week 6 Reflection: *What did you learn this week?*

This week I learned the impact automation of certain processes can have on overall efficiency. Most of the projects I had worked on were tedious, simply because data was inputted incorrectly or there lacked a workflow between processes. If for example, the checks I scanned onto the bank app could automatically be applied to our CRM software, that would allow the accounts receivable team to focus on other tasks and ensure less room for error from data input mistakes. I also better understand the importance of inputting data correctly to begin with to save time later. Had the ungrouped transactions been classified, I wouldn't have had to go back and try to guess what the classification should have been with an invoice containing limited information. Lastly, I was able to gain insight into meat science and see firsthand how the machines operated, which helped when seeing the names of certain machines on an invoice, since now I understand what that machine can do and why a company might be purchasing it.

Week 7 Journal Entry: *July 5-8, 2022*

A new accounts receivable clerk started this week, and I was tasked with teaching her how to call customers that needed to pay their invoices. On the payables side, I had to go through UltraSource's Dell business credit line to try to find an average cost per item, which included mice, keyboards, laptops, etc. I also looked at technology invoices from another company and calculated the average monthly payment for their services. On the freight side, I checked for tariffs above 3% on imports from China, because since they were for food processing, a tariff above 3% meant the company needed to get refunded for any overage. Since one of UltraSource's biggest freight vendors laid off many of their staff, I created a spreadsheet of all the company's past spending with every freight vendor used to date. Lastly, I went into the utility portals I created accounts for and turned them all to autopay. This week was also our lunch and learn from marketing, who gave all of us interns a sneak peek at the website they had started redesigning for the company.

Week 7 Reflection: *What did you learn this week?*

Upon looking at the Dell business credit line and other technology-related invoices, I further learned the importance of cost management. It made sense to look at what items were most costly and if those costs were necessary and if so, try to reduce them. Additionally, it was important to look at the freight tariff percentages, because even if the company was charged just a smidge over 3%, that overage could add up over time, especially with some freight loads being worth six figures. Going off that, I learned the importance of relationships in business. Upon the freight company layoffs, a representative reached out and asked our controller to dinner to go over what the future would look like. Since UltraSource had spent a lot with the company, they wanted to maintain the relationship. In part with that, it is important to be a proactive thinker. Though it was assured UltraSource could still use that freight company, the controller wanted to think ahead and investigate alternatives in case the layoffs would later have an impact on the freight company's ability to handle shipments. Though relationships are important in business, it is vital to ensure that the right ones are being made to continue higher efficiencies and lower costs.

Week 8 Journal Entry: July 11-15, 2022

I utilized automation this week and created an email rule that moved customer remittance information into a certain subfolder, so it wouldn't get lost in the main accounts receivable inbox. I also paid any overdue invoices in the vendor portals that were there before turning on autopay. There were many purchase order lines open before 2022, so I reached out to buyers to see if those products were already received and if they were, I was able to close the purchase order line. Some purchase order lines were from as early as 1990, so I also closed those to clean up the system a bit more. The recruiting fees were much higher for UltraSource in 2022, so I investigated each fee for the employee that was recruited, including what department they worked in and if they still worked for the company. The chief financial officer gave me a stack of checks he had previously written to vendors, and I searched to see if those companies had online portals that I could set up. Some customers had orders that were ready to be shipped but hadn't yet due to them not providing payment, so I sent them over proforma invoices to expedite the process. In doing this, the inventory could be shipped and allow for more available space in the warehouse. Lastly, this week was the finance lunch and learn, so I got to help decide which food was brought and help the other interns understand what our department does on a day-to-day basis.

Week 8 Reflection: *What did you learn this week?*

This week further proved to me the power of automation, even if it was as simple as creating an email rule. Creating the email rule made it much more efficient to separate customers trying to provide their remittance information from customers asking general questions. Since I oversaw adding customer remittance information to my Excel spreadsheet, I could simply check the subfolder periodically to find what I needed instead of having to dig through an entire inbox. Additionally, if there was a way to automate a buyer saying they had received a purchase order instead of having to manually go into the system and delete it, the information in the system could be timelier without being affected by user error. As a smaller company, I can understand UltraSource having more manual processes than other companies probably have.

Week 9 Journal Entry: July 18-22, 2022

This week I assisted in an audit. I helped the HR department with their employee pay audit, by going through invoices for contract employees and how many hours they worked and how much they got paid in the year 2021. This audit was for insurance purposes, so it helped to make sure the company rightfully had those employees as contracted and that they were compensated fairly. UltraSource has employees that go to trade shows and put all expenses on their personal credit cards, so I vouchered out money the company owed those employees for their spending. Lastly, I focused on the 1470050 account, which is deposits on inventory. These were payments UltraSource made on equipment prior to it being shipped. If UltraSource already had the equipment and the 1470050-account charge was still there, I had to net it back to zero and remove the charge from the account so that the number was accurate. This week the lunch and learn was from the kill floor department, who explained how they utilize different employees with different levels of knowledge to solve customer issues and provide solutions if say maybe their warehouse does not have the proper functionality for a certain machine.

Week 9 Reflection: *What did you learn this week?*

This week I learned the importance of documenting information in case an audit arises. For the HR department, I was able to look at all the contract employees and find invoices for how long they worked and what they were paid. From that, I was able to total the payments and provide HR with a final number for contract employee payments in 2021. Additionally, I learned how important it is to have a team with different skill sets. The kill floor team ranges from meat scientists with PhDs to people that grew up on farms, so when a customer has an issue with a machine not working, they can come together to figure out why and solve the matter. They can figure out if the problem has to do with the machine itself or if it's user error, since each person can provide different input. Without the versatility of employees, everyone would have the same thinking and new solutions would never be found.

Week 10 Journal Entry: *July 25-29, 2022*

This was my final week in-person at UltraSource because I was asked to work to continue with my work during the school year. I assisted with the July month-end analysis by looking at the profit and loss statement and marking discrepancies for the controller to check to see if they were errors or genuine differences. I also added invoices into the Amazon, Kraft, and Tyson portals, since the receivable team had a different way of working with those large accounts. I wrote cost roll journal entries for the large purchase price variances that were not just temporary. To do this, I had to debit inventory shrink and credit purchase price variance for every single item that had increased in cost. Lastly, UltraSource hosted an intern event at Chicken n' Pickle in Kansas City to celebrate all we had accomplished during the summer.

Week 10 Reflection: *What did you learn this week?*

Skillfully in my final week, I learned how to write journal entries for purchase price variance, which is something I had never done before. Otherwise, I learned the importance of comradery in a company. Though UltraSource is a smaller company that isn't a household name, the comradery and employee appreciation are something that can't be contested. Every Friday was coined "Frosty Friday" and HR arranged for an ice cream truck to come during lunch, so we could all enjoy a cold treat on those hot summer days. They also brought in a sheet cake every month to celebrate employee birthdays and work anniversaries. The intern event was another example of this, as even though it was for interns, a lot of other employees wanted to and were allowed to come. It was events like that that made me feel a part of the team and happy to be giving my 100% effort to the company every day.

Opportunities of Automation:

With the rise of automation and AI-powered technology many fear the loss of their jobs, but automation can play a role in strengthening worker efficiency. According to the McKinsey Global Institute's journal, "about 60% of all occupations have at least 30% of constituent activities that could be automated." The automation of those activities would allow workers to focus on other important tasks, rather than ridding of jobs altogether. As seen at UltraSource, my help with automating vendor and customer processes enhanced the accounts receivable and

payable teams' ability to deal with other tasks, such as responding to emails. Additionally, automation can increase business performance, through "reducing errors and improving quality and speed." While I was inputting vendor banking information into my Excel spreadsheet, there were a few occasions where I accidentally typed the wrong number. If there was a flow created where the emailed banking information could be directly automated to the bank portal, the numbers would be a perfect match every time. In direct relation to finance, Deloitte's article states that with the automation of "transactional activities", more time can be spent on "analytics and insights." Before my summer at UltraSource, the chief financial officer signed every check sent out to the company's vendors every week. Some weeks that could mean a few, but other weeks it could be close to a hundred. With the introduction of ACH payments, which meant no more signing checks, the chief financial officer could focus on looking at the future of UltraSource and analyzing all the different financial statements. Automating manual processes not only reprioritizes what time is spent on but can also reduce costs. According to Steve Dunne, a Workday staff writer, even a small finance team can lose "1,920 hours annually, or an estimated \$124,800 in costs" concerning manual tasks. As a small company, UltraSource can not afford to lose that much, so it would make sense for them to spend money on tools for automation to save in the long run. Overall, there are many benefits to automation, such as freeing up employees' time and running more efficient processes with accurate data input. For finance specifically, automation can aid in focusing on business strategy with the decrease of manual tasks.

Challenges of Automation:

Despite the many benefits of automation, some challenges can arise in job security and the catalyzation of automating processes. According to Eric Dahlin, a sociology professor at Brigham Young University, the future of automation could adversely impact "employment prospects in some occupations characterized by simple and routine tasks". With a lack of emotion, it would be difficult to automate the job of a chief financial officer for example, but another job, such as a bookkeeping clerk, could allow for their main abilities to be automated. For most occupations, automation would free up time, but some occupations are made up of entirely manual tasks. At the same time, automation "can also complement human labor" by opening new industry sectors with the growth of technology. In the *International Journal of Innovative Technology and Exploring Engineering*, it is said that one of the largest operating costs for a company is an automation system. Not only does the system itself cost money whether it be through a one-time fee or monthly subscription, but team members would also have to be trained on how to work the new system. The influx of automation and new technologies requires individuals to "acquire new skills", which can be hard for some. Overall, the challenges of automation are how to use it efficiently, the costs to even begin, and picking the right system for your company. At UltraSource, they were switching from using the ERP system of SyteLine to one called Microsoft Dynamics. The licenses for Microsoft Dynamics were costly, so the hope is that a more integrated system will save costs in the future and allow for more efficient work. Additionally, tons of training had to be done to get everyone up to speed and even then, there is a learning curve at the start.

Conclusion:

Upon researching the opportunities and challenges of automation, it can be argued that the benefits outweigh the costs. With the ability to refocus workloads and ensure efficiency and accurate data input, it is beneficial for both companies big and small to automate manual tasks. Since such a small percentage of jobs can be completely automated, adopting AI processes will transform the workforce instead of destroying it. For the UltraSource finance department, this means the accounts receivable team will spend less time mailing out customer invoices and more time on client-facing activities. It also means the chief financial officer focuses less time on signing checks and more time on planning the financial future of the company and maximizing profitability.

In my summer at UltraSource, I am glad that I could contribute to the company becoming more and more paperless. By the end of the summer, it is to my knowledge that not a single check was signed and that all vendors were paid via ACH. Without the support of the entire finance department, I never would have been able to contribute to making that possible. Though I will not be working at UltraSource following my graduation, I learned how to operate in a corporate environment and gained many valuable skills such as time and project management, how to analyze financial statements, account reconciliation, and data entry among many other competencies. Every project I was a part of was a real-world application and helped the company in some way. I am excited for UltraSource to grow as an automated company and for all their future success.

Works Cited:

- Dahlin, Eric. "Are Robots Stealing Our Jobs?" *Sage Journals*, 2019, <https://journals.sagepub.com/doi/full/10.1177/2378023119846249>.
- Deloitte. "The Future of Automation in Finance." *Deloitte United States*, 28 Jan. 2021, <https://www2.deloitte.com/us/en/pages/advisory/articles/future-of-automation-in-finance.html>.
- Donepudi, Praveen K. "Automation and Machine Learning in Transforming the Financial Industry." *Asian Business Review*, 2019, <https://pdfs.semanticscholar.org/c1b7/075c3e0074cd791f5d1cfe47b80764d1ccd3.pdf>.
- Dunne, Steve. "How Intelligent Automation Will Transform the Finance Function." *Workday Blog*, 10 Nov. 2019, <https://blog.workday.com/en-us/2020/how-intelligent-automation-transform-finance-function.html>.
- Ismail, Albert F, et al. "Opportunities and Challenges for Implementing Automation among Selected ..." *International Journal of Innovative Technology and Exploring Engineering*, Oct. 2019, <https://www.ijitee.org/wp-content/uploads/papers/v8i12S2/L112610812S219.pdf>.
- Lawson, Daniel L. "Automation and Its Effects on the Workforce." *Digital Commons @ East Tennessee State University*, East Tennessee State University, Dec. 2010, <https://dc.etsu.edu/cgi/viewcontent.cgi?article=3123&context=etd>.
- Manyika, James, et al. "A Future That Works: Automation, Employment, and Productivity." *Executive Summary*, McKinsey Global Institute, Jan. 2017, <https://www.mckinsey.com/~media/mckinsey/featured%20insights/Digital%20Disruption/Harnessing%20automation%20for%20a%20future%20that%20works/A-future-that-works-Executive-summary-MGI-January-2017.ashx>.
- Nunes, Ashley. "Automation Doesn't Just Create or Destroy Jobs - It Transforms Them." *Harvard Business Review*, 2 Nov. 2021, <https://hbr.org/2021/11/automation-doesnt-just-create-or-destroy-jobs-it-transforms-them>.
- Segal, Michael. "How Automation Is Changing Work." *Nature News*, Nature Publishing Group, 28 Nov. 2018, <https://www.nature.com/articles/d41586-018-07501-y>.
- "UltraSource Food Packaging & Processing Equipment, Parts and Industrial Supplies." *UltraSource LLC Kansas City*, UltraSource LLC, 2023, <https://www.ultrasourceusa.com/>.
- Uzialko, Adam. "How Automation Is Changing Workplaces Everywhere." *Business News Daily*, 21 Feb. 2023, <https://www.businessnewsdaily.com/9835-automation-tech-workforce.html>.