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How Automation is Making a Positive Impact on the Fast Food Industry

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Senior Honors Project

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of the Westover Honors College

Westover Honors College

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Abstract:

As the fast food industry has rapidly evolved, so has the use of technology within these businesses. Artificial intelligence is something that is being used in these fast-food restaurants to drive change. With restaurants adding artificial intelligence into their business model, many of their goals have changed. Restaurants are now having the goal of improving their speed and accuracy when it comes to order taking, enhancing the customer experience, and reducing their costs. All of which are attainable through the use of artificial intelligence. Though businesses are now using artificial intelligence; there are many concerns about the downsides that come with it. Some of those downsides are job loss and start-up costs. However, this paper aims to explore and explain how artificial intelligence is truly changing the landscape of the fast food industry. By looking at relevant literature and studies on the topic, conclusions can be drawn and the positive effect of artificial intelligence is shown. Additionally, many insights will be given as to how the customer experience is now changing and what businesses are adopting this practice. Overall, the adoption of artificial intelligence in the fast food industry represents a change that is here to stay.

Introduction:

Fast food has always been known for how it's a convenient and affordable food option. However, as businesses are now adopting the implementation of technology; operations are now being taken to a whole new level. The use of automation in the fast food industry has allowed businesses to reduce errors, improve customer experience, and can increase efficiency. Through the use of kiosks and other self-order machines, customers are now able to have a more personalized experience, while not waiting in long lines. Not only does this benefit the customer, but the business as well. As technology continues to expand, so will the use of it in the fast food

industry. Many large fast-food chains are already using automation to expand their business and this number will only continue to rise.

While there are many benefits to using technology, it's important to consider the potential drawbacks as well. A big area of concern when it comes to the rise of automation is the impact it will have on unemployment. As businesses continue to adopt automation, certain jobs will no longer be needed. Therefore, jobs will be lost and new skills will be required in order to stay. Additionally, a concern when it comes to automation is how the human touch/interaction will be affected. Customers will be more in touch with a robot than an actual human, which raises the concern of many.

This paper aims to dive deeper into this new way of business and allow readers to gain a better understanding of how automation positively impacts operations, customer experience, and the fast food industry as a whole.

What is Artificial Intelligence?

Artificial intelligence, otherwise known as AI, is an ever-evolving field that involves the development of computer systems, to perform tasks that typically require human knowledge. Some of the different aspects that AI can do is problem - solve, decision - make, and language understanding. Often times AI and automation go hand in hand due to the fact AI technologies are used in order to automate various tasks. With that being said, automation is referred to as the use of technology to perform tasks without human intervention. The goal of automation is to increase efficiency and reduce costs. Due to the use of AI-powered automation, speed and accuracy during the business process are two components that can be improved when bringing AI into the equation. Overall, due to the use of AI and automation tools, the landscape of the fast

food industry is changing, as these technologies continue to get better, businesses will be revolutionized.

Literature Review

Throughout time, humans have continually invented new technology. During this period, businesses have adopted new practices and techniques to keep up with changing times. As technology has grown, the landscape of the fast-food industry has changed as well. Due to the business' implementation of artificial intelligence, we can see how different aspects of the business are now affected. Although there are some drawbacks due to the use of automation in the fast food industry; the use of artificial intelligence has changed the landscape forever. This Literature review section will discuss several key technologies in the fast-food industry and their effects on restaurants as a whole.

Ordering System

Due to technological advancements, restaurants are now using different ordering systems to not only help themselves, but the customer as well. Mobile applications are something that many businesses are now using to speed up their operations process. " Having a mobile application that allows the user to order food from any time and anywhere they want is not only convenient but also helps customers to make a more informed decision as they have more time to view and analyze the menus before placing an order. " (Ibrahim, 2019) Not only is this great for the customer, but for the business itself. Smart Food Ordering System says, " For merchants on the other hand, they can manage the order easily without the need to actually face the customer in the restaurant and listening carefully to the customer's speech to capture the order which often could lead to order not being properly captured and customer become unsatisfied with the restaurant's service. " (Ibrahim, 2019). Using these mobile applications are allowing businesses

to flow better and customers to be more satisfied. According to Hopper (2018) in a study, the evolution of digital has stirred up the restaurant industry and made them adapt in various ways to enhance customer experience, such as implementing ordering apps and digital dining technologies in their restaurants to attract more customers. Due to technology growing at a rapid rate, businesses are implementing new ways to appeal to their customers and ensure that they come back. Nobody wants to be waiting to get their food that's supposed to be prepared in ample time or have to go to a place at a certain time just to ensure they're not waiting forever.

Businesses and customers both want the operations process to be as fast and efficient as possible. Therefore, it was no surprise to me when I read, in a study done by Tillster (2020), it was mentioned that over 65% of consumers are more likely to go and become regular customers of a restaurant if the restaurant provides self-service technology such as kiosks for making the process of ordering food easy and fast. The Tillster conclusion would furthermore support the study done by Neiman (2019) that suggested restaurant owners could benefit from the opportunities to adopt self-service technology such as kiosks and mobile applications.

Customer Experience

Another facet of the fast food industry that has grown due to the implementation of technology is the customer experience. Duke researchers found that " consumers might fear being misunderstood or appearing unsophisticated in front of the clerks. " (Gavett, 2015) Therefore, by changing to self-service, restaurants take out the social friction aspect of it all. Another way the customer experience is changed by the implementation of technology is that customers are more likely to order what they truly want without the fear of being judged. During the same study, researchers looked into the pizza industry and found, customers who were ordering online ordered food with 3% more calories and also gave 14% more [special]

instructions compared with the average purchase over the phone (Gavett, 2015). This goes to show that customers may not always order what they want out of fear of judgment. However, with the use of automation, customers can now happily get what they want without any limiting factors. Furthermore, (Ngelambong,2022) report stated that consumers benefited from an improved experience, shorter wait times, ease of use, convenience, and increased personalization when it comes to the use of kiosks. At the end of the day, customers in the fast food industry want to be serviced as fast as possible, while also dealing with as little as possible. By businesses' adopting automated techniques, it gives customers exactly what they are looking for.

Changes

Although the use of artificial intelligence has been great for the fast food industry there are some drawbacks when it comes to its implementation. One of the biggest ones is unemployment. Martin Ford stated, " Self-service checkout lanes are becoming increasingly prevalent and popular. Mobile applications offer in-store access to product information and customer service. Wal-Mart is currently testing a service that allows customers to scan barcodes and then pay for their purchases with their mobile phones, completely avoiding lines and cashiers. " Therefore, we can see how eventually in the fast food industry there won't be a need for cashiers or servers. Latham and Humberd state, fast-food workers' core skill sets are highly threatened by the implementation of self-ordering stations and apps where customers place their orders. If customers can order straight off of a touchscreen app, why would these big companies continue to pay people to do a job that's being done for them? Businesses such as Mcdonald's are already looking to see, 'Where can technology make this better and easier and faster?', says Lucy Brady. Why pay for a person to do the work when technology could make the work way better than humans? Not only would technology make the process better, but it would be cost-effective

in the long run as well for businesses. Sam Zietz a chief executive at Grubbr stated, "On average, a cashier at a quick-service restaurant open 15 hours per day will cost more than \$6,000 per month (with all associated carrying costs). In contrast, automation technology can perform all of the functions of the cashier at a fraction of the cost. In addition, technology always shows up, don't call in sick, and are ready to work 24/7." If technology can do all the things a human can at a cut of the cost, while never missing a beat; it seems like a no-brainer to implement new technology wherever a business can.

Methodology

Approach:

Throughout my study, I used a qualitative research approach. The reasoning behind using a qualitative research approach was to gain a clearer insight into how automation is changing the landscape of the fast food industry. By using the qualitative approach, I was able to analyze different data points and statistical numbers to better form conclusions. Another reason behind using the qualitative method was that it allowed me to measure how automation may be impacting businesses and customers themselves. Using the qualitative method, allowed me to improve the report of my findings from all the data that was gathered. Another way the qualitative approach is useful is in identifying and understanding the literary text of automation, along with how the experience is for customers and businesses. Overall, the qualitative approach was very valuable in providing key insights into how automation is used in the fast food industry.

Theoretical Framework:

During this research study, there were two different types of theoretical frameworks used. First, I used a socio-technical systems approach when it came to my research. The socio-technical systems framework is one that states, "When designing an organizational system, both social and technical are important parts of a complex system that must be considered." (Gordon, 2022). I believed that to be very important when looking at research on how automation is used in the fast food industry. The socio-technical systems approach emphasizes the interaction between technology and social systems, which I believe goes hand in hand with the information I was looking for when it came to the impact of automation. Using this framework, allowed me to focus on how technology is being integrated into the fast-food industry and how that's affecting businesses as a whole. This approach tied right into one of my research questions, "What are the effects of automation in the fast food industry? ".

Secondly, I used the theoretical framework of technological determinism when it came to my research. Technological determinism, " argues that institutions, societies, culture, and economics evolve because of developments in technology." (Généreux, 2019). By incorporating this specific theory into my research, I was able to put into perspective how the rise of technology use is inevitable and how its impact could affect a large industry such as the fast food one. The use of technological determinism assesses' how technology can change the nature of an entire industry and this is something that allowed me to focus on another aspect of my research which was, " How is automation in the fast food industry changing the landscape as a whole? ". Technology is something that is changing how these restaurants are doing business, which then impacts the customer experience. Due to the use of both of these theoretical frameworks I was

able to dive deeper into the automation topic and decide on what specific sources I could use that would lead me to the answers I needed.

Sources:

I came to the conclusion on which sources would best be used for my research based on how the information being presented to me fit within my theoretical framework, along with my qualitative approach. During this research, I had to get specific quotes and data that went along with my hypothesis, while also allowing me to come to a clear conclusion. Although, there was a lot of new information out there, much of it was repetitive, which further allowed to me understand the facts behind automation in the fast food industry. Automation in the fast food industry has been going on for some time now, but due to different practices of it being put to use; there is a lot of new information coming to light. This made it much easier for me to identify which sources I could use, whether that be a company site or just straight factual information on what businesses are doing when it comes to this topic. By looking at the facts, I identified clear-cut sources to use throughout the research process and would eventually come to the conclusion I needed.

Data / Analysis:**Operations:**

When it came to looking at how operations in the fast food industry were being affected, I looked into what big businesses' adopted automation. In doing so, I was able to look into what specific technologies they may have started implementing, as well as how that directly impacted them. Therefore, I believe it was key to understand exactly what was being done within these businesses and how automation impacted them.

One of the first things that I came across was the implementation of self service kiosks in many big businesses. A kiosk is a self service machine that allows customers to order food and other services without having to directly engage with employees (Ngelambong, 2022).

McDonald's, Dominos, and Taco Bell are three big corporations that have incorporated touch screen kiosks to complement their regular cashiers. These kiosks can enhance the speed of service, particularly during peak hours, while also potentially lowering labor costs by easing the cashiers' workload. Additionally, these kiosks can improve order accuracy compared to their human counterparts. Furthermore, customers tend to order more food when using these machines (Harrell,2022). Taco Bell has kiosks in 6,100 locations. Those kiosks feature AI-driven product recommendations, David Gibbs, chief operating officer for Taco Bell's parent company Yum Brands, said this week (Maze,2019). Due to a business adding kiosks into their store, it allows for a smoother operations process. Businesses will have an increase in efficiency, accuracy, and data collection. Kiosks can help to increase the speed of the ordering process. With kiosks, customers can place their orders and pay for their meals without having to wait in a long line or interact with a staff member. This can reduce wait times and help speed up the overall process of ordering and serving meals. Another benefit when it comes to the implementation of self-service kiosks is that it can save business money when it comes to labor costs. Having these machines in a business takes away the need for having cashiers, which in turn makes it so that businesses won't have to pay for a cashier's service. Next, kiosks can reduce the chance of error when it comes to the ordering process. Due to customers being the ones placing their orders, it reduces the likelihood of miscommunication. This will in turn improve the accuracy of the customer's order and reduce the chance that the customer complains about an order being wrong. Lastly, the benefit of a kiosk when it comes to the operations process is the data collection it allows for.

Businesses can better see the ordering patterns of their customers, which will in turn allow them to upsell certain products to make the most profitability. Overall, the implementation of kiosks allows for the operations process of a business to be more efficient and smooth.

Dominos:

Dominos is a big corporation that is seen using automation more and more to enhance its business. To start things off, Domino CEO Patrick Doyle has claimed that they are a " tech company that sells pizza ". One of the latest technologies that Domino's has implemented is voice ordering. At 40 of its locations, customers can now place their orders using an artificially intelligent virtual assistant that they can talk or text to (Maze, 2019). Using machine learning and voice recognition, this system allows customers to place their orders quickly, easily, and even in an entertaining way(Walker, 2019). Enabling customers to have increased satisfaction and loyalty. Customers won't have to wait on the phone for minutes at a time to place an order that could take a single minute. Voice recognition is a powerful tool that Dominos is using to positively impact its business. Another technology Dominos has invested in is GPS tracking for their delivery drivers. This technology not only allows customers to track their pizza deliveries in real-time down to the second, but it also provides the company with a wealth of data to improve efficiency and safety(Walker, 2019). By analyzing the data collected from GPS tracking, Domino's can optimize their delivery routes, reduce delivery times, and improve driver safety. This not only benefits the company but also the customers, who can get their pizza delivered faster and more reliably. Dominos has the mission of making the customer experience and store operations better. Therefore it was no surprise that automation helped them achieve this. In a statement, Dominos said, " AI has helped us achieve this mission: by rewarding customers for

ordering pizza, by giving them a better estimate of when their order will be ready, and by improving their phone ordering experience. Routing orders more efficiently even helps our drivers get more tips. " (Fragoso, 2020). Due to the use of automation at Dominos, the accurate prediction of when an order would be ready boosted from 75% to 95% (Merritt, 2020). This goes to show how using automation for a big corporation like Dominos has them trending in a positive direction and is changing the way they go about their business now. Lastly, Points for Pie is something that automation has allowed Dominos to incorporate into their business. At the time it was Dominos highest profile AI project. The concept allowed customers to snap a picture of the pizza eating, and in exchange, Dominos gave them loyalty points toward a free pizza (Fragoso, 2020). Without the use of AI in their business, Dominos wouldn't be able to do something like points for pie or enhance the customer experience by being accurate with their predictions on when the customer's pizza will be ready. Dominos is using automation to its full advantage and it's working in a very positive way.

Mcdonalds:

Mcdonald's is another large corporation that has greatly invested in the use of automation in their business. One of the ways Mcdonald's has incorporated AI into their business is through their use of mobile orders that customers can pick up through their drive-through or in-store pickup. By incorporating this use of technology it enables customers to get exactly what they want without having to interact with any employee that may not entirely get their order correct. Lucy Brady, Mcdonald's chief digital customer engagement officer stated, "Humans sometimes forget to greet people, they forget, they make mistakes, they don't hear as well, A machine can have a consistent greeting and remain calm under pressure"(Metz, 2021). This is big for a

customer service restaurant such as McDonald's. They rely on people to give their customers a one-of-a-kind experience and sometimes people make regular human errors. However, when implementing AI into this business, they can eliminate the fear of error and focus on other aspects of the business. McDonald's CEO Steve Easterbrook said, "We see voice technology playing an increasing role in all of our lives, At McDonald's, this is particularly significant because of the importance of drive-thrus to our portfolio." (Maze, 2019). Due to their belief in the impact of automated voice technology, McDonald's has started to implement this software at some of their locations already. In particular, Chicago has ten McDonald's locations that are using this AI technology, with more to be on the horizon. Another way McDonald's is using automation to positively impact their business is through their use of Dynamic Yield's order suggestion capabilities. At McDonald's drive-thrus and indoor ordering kiosks, " a menu board may suggest you order a breakfast sandwich served on a biscuit in the American South, where those are popular, but on an English muffin elsewhere. " (Metz, 2021). In doing so, this allows them to market certain products depending on the geographic location and get more customers to order something they may not have thought of. This is just one example of how the use of technology is changing the landscape of a business such as McDonald's. Lastly, McDonald's has implemented cutting-edge technology in many of its locations through their use of AI systems. These screens, known as self-order kiosks, allow customers to place their orders independently, without having to interact with a human cashier. The self-order kiosks are large, user-friendly screens that display the menu and allow customers to customize their orders to their liking (Poonia, 2022). They are equipped with AI systems that can suggest menu items based on the customer's previous orders or the time of day. For example, if a customer frequently orders a Quarter-Pound meal with a sprite, the AI system might suggest this as their default order. If it's

breakfast time, the system might suggest a breakfast sandwich and coffee. This allows for it to be very user-friendly and customer oriented. Positively, customers can also pay for their orders using the self-order kiosk, either by inserting cash or swiping their credit card. Once the order is placed and paid for, the customer simply waits for their order number to be called and collects their food from the pickup counter. This allows for a smooth transaction process between the customer and the business. In conclusion, McDonald's use of automation demonstrates the company's commitment to enhancing the customer experience through innovation and technology.

Customer Experience

Customer experience is something that has significantly improved due to automation. By businesses adding automation to their operations, the potential for human error is eliminated. Fatigue and other everyday life struggles can lead to poor judgment at times, while a machine with only one goal and purpose is less likely to make the same type of mistake. In turn, it's led to more customers having a consistent and reliable experience. Starbucks is one company that has invested in automation to improve its customer experience. As CEO Kevin Johnson stated on the company's earnings call, "We continue to see a strong correlation between Starbucks partner engagement and customer connection, which leads to increased consumer frequency... We are making targeted investments to elevate the partner experience with clear evidence that this in turn elevates the customer experience and drives growth." (Maze, 2019) By automating certain tasks, such as order-taking and payment processing, Starbucks has been able to free up its employees to focus on more meaningful interactions with customers. This has led to an increase in customer satisfaction and loyalty, ultimately driving growth for the company. Another company that uses automation to improve its customer experience is McDonald's. Lucy Brady,

McDonald's chief digital customer engagement officer said, " We're really looking systematically at that customer experience and thinking, 'Where can technology make this better and easier and faster? " (Metz, 2021) This goes to show how technology is something that is changing the way businesses are now looking at the customer experience. The use of AI allows for an easier and faster way for companies to improve their overall customer experience. Therefore, the customers are also being affected by this change, but in a positive way. A way that makes their overall experience a much better one when going to these fast food restaurants.

Discussion

What remains to be done:

When it comes to automation in the fast food industry, there is still much more exploration that needs to be done. Due to automation being a new addition to the industry, businesses are still experimenting with this technology to figure out what works and what doesn't. However, there are long-term effects of automation that still need to be addressed. Since automation hasn't been used for a long enough time to know whether it is a successful tactic or not, companies aren't too sure what the long-term effects will truly be and how that will affect their business. Another aspect of automation that will also need to be explored over time is the creation of new jobs due to the use of technology. As some jobs may get displaced due to automation, many jobs will also be created to keep up with the evolution of technology and how it's used. Therefore, this is something that must be paid attention to, furthermore, the development of cost-effective technology is an area that needs to be addressed when it comes to automation. Not many small to medium-sized businesses can afford to pay for all these new tools. This means that technology will need to be readily available for all business sizes. While

there is still much to be done when it comes to automation; it's a tool that has already helped many businesses and will only continue to expand.

Downside

When it comes to the use of automation in the fast food industry; the downside effects have to be analyzed as well. Two areas that automation affects are unemployment and implementation costs. Employment gets affected in the way of many jobs in the fast food industry becoming automated. One of the most significant impacts of automation on employment in the fast-food industry is the displacement of low-skilled workers. As more tasks are automated, there is less need for human workers to perform those tasks, leading to fewer employment opportunities in the industry. (Latham and Humberd, 2018) stated " Skills that can easily be standardized, codified, or routinized are most likely to be automated ", when talking about what types of jobs are in danger. For instance, self-service kiosks are becoming increasingly common in fast-food restaurants, allowing customers to place orders without interacting with a human cashier. This means that fewer cashiers are required to take orders, and those who do work may be required to perform other tasks, such as food preparation or customer service. The next downside to automation would be the high implementation costs that are required. The initial cost of purchasing and installing automated equipment is often the largest expense associated with implementing automation in the fast food industry. For example, self-service kiosks, automated cooking equipment, and robotic arms can be expensive to purchase and install. These costs can be especially burdensome for small and medium-sized fast-food businesses that may have limited budgets. Additionally, the cost of upgrading existing equipment and infrastructure to accommodate automation can also add to the overall cost of implementation. Therefore, this is something that fast food companies will have to take into

consideration when it comes to automating their restaurant. Although there are some downsides to implementing automation into the fast food industry; many believe that it will be years before automation takes over the industry. Experts say it will be years before robots pay off for companies or take the place of workers. David Henkes, a principal at Technomic, a restaurant research firm, stated " I think there's a lot of experimentation that is going to lead us somewhere at some point, but we're still a very labor-intensive, labor-driven industry" (Lucas, 2022). This goes to show that automation is a positive thing, but jobs aren't completely being displaced and unemployment isn't a huge worry. Kai-Fu Lee, CEO of Sinovation Ventures and author of the 2018 book "AI Superpowers: China, Silicon Valley, and the New World Order, stated, "We must remember that our human knack for compassion and empathy is going to be a valuable asset in the future workforce and that jobs hinged on care, creativity, and education will remain vital to our society." (Poonia, 2022) Human connection is one of the things that people look forward to daily, which means that businesses would be lost to full automation. People wouldn't want to always interact with a robot, sometimes people go into these fast food places to have that quick interaction with a person. Therefore, I don't believe the issue of unemployment to be a huge downside when it comes to the use of AI in the workplace. Yes, it's something to think about, but it's not something that should be too worrisome. Another idea to think about when it comes to the downside of automation is that older, less technology-friendly people may struggle in using the various automated tasks that are available to them. Technology can be very hard to use and can be a huge pain. Therefore, the older generation that hasn't grown up using this advanced technology will struggle. Furthermore, disabled people are a group that could be affected in a negative way by the advancements in technology. Technology doesn't always account for people with physical/mental disabilities. Using certain touch screens can become increasingly tough on

the user. Where if they had a person to talk to, everything would run a lot smoother for them. For instance, when it comes to mobile ordering apps and kiosks there may not always be the easiest accessibility features for the user. This then makes it much more difficult to navigate the two different types of technologies for someone that may have a disability. Speaking and telling a person what exactly you want can be a much more convenient option. As technology continues to grow, this is something that will need to be paid attention to.

Use of the study:

The main purpose of this study was to gain a better insight into how automation has changed the landscape of the fast food industry. By analyzing the many positives, but also looking at the negatives brought to the table; readers are better able to grasp how technology in the fast food industry is changing businesses as a whole. Not only that, but potential roadblocks to automation are also able to be identified. Allowing readers to conclude by looking at the facts. By using the information presented, it is possible to see whether or not automation is a good investment and if it's something that businesses should continue to use.

Limitations

Limitations:

Although this study gives valuable information as to the impact of automation in the fast food industry, there were still limiting factors in the research. First, the sample size of the fast food restaurants that were looked at was limited to larger chain restaurants, neglecting the impact of automation on the smaller to medium-sized businesses. Even though the larger restaurants

may be a bigger representation of the industry as a whole, it's still important to look into how all different types of businesses may be affected. Another limitation of this study was the different technologies that were researched. Due to automation being such a newly found topic of discussion, there are many different forms of automation used that don't have much discussion about them. Therefore, it's hard to truly know the impact of those different technologies in the fast food industry. Lastly, research was limited due to the fact technology is a rapidly evolving/changing industry that needs to be carefully looked at and continuously talked about to keep up with changing times. Further research is needed to be done to truly grasp the concept of technology and how automation use is making waves in this market. Despite the different limitations of this study. A clear insight was still able to be gained and conclusions were made.

Predictions

What to expect:

Technology within the food industry is predicted to reach \$342 billion by 2027, according to a study done by Emergen Research (Poonia, 2022). When you couple increased efficiency and revenue with fewer wages paid to personnel and less error caused by those workers, you have a clear recipe for a sustainable, lucrative business model. Therefore, it was no surprise to see the number being as high as it was. At its core, restaurant automation makes things more efficient – when done right, it can simultaneously decrease a restaurant's costs while increasing efficiency. Making it very profitable for businesses to use. Although start-up costs may be high, restaurants are surely going to make their money back through the implementation of automation within their business. As we've already talked about major businesses implementing automation into their model; Chipotle has also recently invested heavily in a California - based robotics company

called Hyphen (Poonia, 2022). The systems that Hyphen offers can organize digital orders efficiently, which is critical for a business like Chipotle which takes thousands of digital orders daily. With more restaurants like Chipotle taking more and more digital orders, we can see more investments happening like this one in the future. Lastly, there are bigger profits to be made with the help of automation. According to Sam Zietz, chief executive of Grubbr, a self-ordering software company, "On average, a cashier at a quick-service restaurant open 15 hours per day will cost more than \$6,000 per month (with all associated carrying costs). In contrast, automation technology can perform all of the functions of the cashier at a fraction of the price. In addition, the technology always shows up, doesn't call in sick, and is ready to work 24/7" (Poonia, 2022). Consequently, more businesses will like to use automation in the near future to avoid losing out on a lot of money that could go towards other things each month. Not only that but there could be big competition between businesses when it comes to the use of automation. Due to one fast food place using automation, another business may adopt the same technique to keep up with changing times. Despite, saying all of this, I don't believe automation will fully take over jobs. Although automation is playing a key role in changing the landscape of the fast food industry, as humans we will still need to feel connected with one another in some form. Hence, not all jobs will be lost to automation. Furthermore, many people go to these fast food restaurants instead of heating food at home for the personal touch/feel of seeing other people. If automation fully ran the business, this aspect of human interaction would be lost. Leading to fewer people wanting to eat out all the time. Overall, the future for automation is bright within the fast food industry and there are a lot of positives to come from its implementation. The widespread implementation of automation in the fast food industry will positively affect operations, customer experience, and the industry as a whole in the future.

Conclusion

Overall:

In conclusion, automation is changing the landscape of the fast-food industry for the better. Businesses can have higher achievable goals when it comes to their operations process and customer satisfaction. Which then directly correlates to how profitable their business model becomes. By looking at the different companies that already have adopted the use of automation, we can see how it's being put into practice and how businesses are responding to the advancements in technology. Although there are potential downsides to automation, those downsides can be worked around, and as technology improves so will those problems. By embracing the use of technology in the fast food industry, businesses not only can improve their operations and customer experience, but businesses can change the landscape for good.

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