

Popcorn and Dentistry: Does This Mix Work? A Case for Vocational and Technological Education

Pipocaria e Odontologia, Será Que Essa Mistura dá Certo? Um Caso Para a Educação Profissional e Tecnológica

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ABSTRACT

This teaching case narrates the journey of a real entrepreneur, identified by the fictional name Augusto. Despite being a dentist by training and working in the field, he decided to abandon the profession to become an entrepreneur during the COVID-19 pandemic, founding the Gourmet Popcorn Shop, Pipocando Pipocaria Gourmet. After overcoming challenges and gaining local recognition, Augusto faced the dilemma of choosing between returning to the dental profession or continuing to lead his own business. This dilemma, along with the decisions made by Augusto during the company's development, provides an opportunity to analyze entrepreneurial action through the combination of causation and effectuation processes. Unlike most cases published in Brazilian Administration journals, which suggest application in undergraduate and postgraduate courses, this case contributes to addressing the scarcity of cases recommended for Technical Education Integrated with Secondary Level in Professional and Technological Education (PTE). To achieve this, the case's level of difficulty and an application plan for Entrepreneurship and Business Management disciplines, or others addressing entrepreneurial action, are considered. The data were obtained from interviews with the entrepreneur, supplemented by secondary data from news articles and social media. The case contributes to the dissemination of causation and effectuation perspectives within the scope of PTE in Brazil.

Keywords: Causation, Effectuation, Professional and Technological Education.

RESUMO

O caso de ensino narra a trajetória de um empreendedor real, identificado pelo nome fictício de Augusto; embora dentista por formação e atuando na área, decidiu abandonar a profissão para se tornar empreendedor, a partir da pandemia de COVID-19, com a fundação da Pipocando Pipocaria Gourmet. Após superar desafios e conquistar reconhecimen-

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ABSTRACT

to local, Augusto se viu diante do dilema de escolher entre uma proposta de retorno à profissão ou continuar à frente do próprio negócio; esse dilema e as decisões tomadas por Augusto, durante o desenvolvimento da empresa, oportuniza a análise da ação empreendedora a partir da combinação entre processos de causação e efetuação. Diferente da maioria dos casos publicados em periódicos de Administração no Brasil, que sugerem a aplicação para cursos de graduação e pós-graduação, este caso contribui para dirimir a escassez de casos sugeridos para o Ensino Técnico Integrado ao Nível Médio da Educação Profissional e Tecnológica (EPT). Para isso, leva-se em consideração o grau de dificuldade do caso e um plano de aplicação para as disciplinas de Empreendedorismo e de Gestão de Negócios, ou outras que abordem a ação empreendedora. Os dados foram obtidos a partir de entrevistas com o empreendedor, e os dados secundários obtidos em matérias jornalísticas e redes sociais. O caso contribui para a difusão das lentes da causação e efetuação no âmbito da EPT.

Palavras-chave: Causação, Efetuação, Educação Profissional e Tecnológica.

Introduction

On that hot April afternoon in 2022, in the city of Cuiabá, Augusto found himself faced with a dilemma: should he return to his conventional career or become an entrepreneur? While the film “Spectre” was playing on Netflix, Augusto sat in front of the television in his parents’ living room, trying to gather his thoughts. Although he was a huge fan of the franchise and had eagerly awaited the film, his mind was elsewhere. He couldn’t help but compare what he had built over the past two years as an entrepreneur to the five years he had invested in his dental training. However, he didn’t consider himself insecure; this reflection made him apprehensive.

His entrepreneurial journey began in October 2020. During a trip with friends to São Paulo, Augusto had the opportunity to try the best popcorn he had ever tasted. The unfolding of many events that followed culminated—who would have guessed—in him becoming a dentist who would dedicate himself to producing *gourmet popcorn*. Among so many possibilities for his professional life, he had never imagined that sweet popcorn and dentistry could combine. Was it an irony of fate? Augusto had fun reflecting on this unusual combination.

Although dentistry was the profession Augusto always dreamed of, influenced primarily by his family, being a dentist also shared a common thread with his desire to start his own business. Before starting his popcorn shop, he believed entrepreneurship would be a project he would embrace gradually, maintaining the stability afforded by a conventional job to gradually progress toward this goal. However, the COVID-19 pandemic arrived, changing everyone's lives, including his own.

Now, more than two years after starting his *gourmet popcorn business*, Augusto carefully weighed the pros and cons of both options. For him, the popcorn business was doing well; after all, at least it hadn't gone bankrupt, like so many other businesses, during the pandemic. He still had plans to launch new products, increase production, and expand the popcorn business to other cities in Mato Grosso.

However, the proposal he had received led him to reconsider his future: returning to practice as a dentist at a prestigious dental clinic in Cuiabá was no small decision. As the film continued on television, Augusto pondered these questions that would determine the future of his popcorn shop. Deep in thought, he heard his mother's voice calling out to him: "*What are you doing standing there staring into space, my son?*"

From a Leisure Trip to a Business Trip

It was October 6, 2019. That weekend, walking the streets of São Paulo under a gray sky, typical of a cloudy day in the "land of drizzle," Augusto could already feel the temperature dropping. When one of his friends suggested going into a coffee shop for something hot, he didn't hesitate and immediately accepted. Upon entering, his gaze fell directly on the sweets section; since childhood, Augusto has always loved cakes, pies, mousses, and brigadeiro. Among the options on the shelf, the one that caught his eye the most was a small package labeled "*gourmet popcorn.*"

When he tasted the popcorn, he was certain it was nothing like the sweet popcorn he'd ever tried, much less the homemade powdered milk popcorn he used to make between appointments to eat with his colleagues at the dental office. This *gourmet popcorn* had a different presentation. It was more eye-catching, large, with a well-rounded shape, without kernels, and the flavor was distinctive, as if it had

small layers of filling. Being a sweet tooth, he quickly bought several packages to ensure a small personal supply for when he returned to Cuiabá.

Augusto completed his undergraduate degree six months before his trip to São Paulo, and he considered himself fortunate, as soon after graduating, he landed a position as a dentist in a city hall office in the capital. He had several friends there, and whenever they could, they would make popcorn or other snacks to share during their work breaks. So, on the Monday after returning from his trip to São Paulo, he took a few bags of *gourmet popcorn* he had purchased to share with his coworkers. As usual, the team gathered in the office kitchen for their afternoon break. The verdict was unanimous: “*This popcorn is amazing!*” exclaimed Lúcia, a colleague and dentist.

Back home after work, Augusto thought about how difficult it might be to produce that kind of popcorn, since he couldn’t recall any *gourmet popcorn* with the same flavor and presentation being sold in the city. “*Is it because the people of Cuiabá weren’t willing to buy it? Or is it because no one has tried to produce it yet?*” he thought to himself.

That *gourmet products* were more expensive than regular products, although this didn’t seem like a good excuse for the lack of a similar product in the city. The search for an answer to this question sparked several ideas in Augusto, as the desire to try something different left him “swayed.” However, he didn’t consider himself a culinary “master”; in fact, he was far from a good cook. His skills were limited to frying eggs, making brigadeiro, and, of course, regular popcorn; this lack of skills was what made him apprehensive about the possibility of producing that popcorn.

The next day, during work, and with all the speculation still swirling, Lúcia, who knew him well, quickly realized that something wasn’t right: “*What’s wrong, Augusto? You’re different.*” Insecurely, trying to vocalize his thoughts to understand if it all made any sense, he decided to confide in Lúcia what had happened the day before: “*Do you think it would be crazy for me to start selling that kind of popcorn you tried yesterday?*”

“ - *Well, I don’t know if it’s crazy, but if your popcorn is as good as the one we ate, you already have a customer,*” replied Lúcia.

Over the next three weeks, Augusto mulled over the idea, which was becoming increasingly acceptable. The next step in deciding whether to start a *gourmet*

popcorn business involved talking to his family, who had already tasted the popcorn he had brought from São Paulo the previous month.

Augusto had always believed that one day he would have his own business, although he wasn't sure what his field of activity would be. For him, the most obvious thing would be to open his own dental clinic; however, he was becoming convinced that the idea of opening a *gourmet popcorn shop* made perfect sense, given his passion for sweets.

That day, Augusto met with his parents and three siblings to tell them about his idea; as expected, he received the support and encouragement he had envisioned. Augusto understood that, thanks to this family support, as well as the support of his friends, he had become a more determined and self-confident person. However, although most of his family members were sold on his idea, his older brother, Pedro, still seemed unconvinced: *"Man, I know how much you love challenges and go all the way to achieve your goals, but I can't help but think about the five years you invested in dentistry school. You never spent much time in the kitchen and always said that after graduation, you would go straight to the office, getting your hands dirty and gaining practical experience. You want to do a specialization too, don't you?"*

"You know I love my job, but I also like to invent things and consider myself creative. Popcorn can be a way to express this part of myself that, in dentistry, I don't always find room to explore," said Augusto.

He also emphasized that his decision didn't imply interrupting his dental practice or abandoning it entirely. For him, the business simply meant a pause in some of his dental goals, as he felt he had found a good opportunity and needed to give it a try. After the conversation ended, still excited about the support given by his family, he looked for more information about *gourmet popcorn* on the *internet*.

Augusto discovered, through social media, the profile of an instructor named Marina Oliveira, who, besides being an entrepreneur in the production of *gourmet sweet popcorn*, offered a popcorn-making course in Campinas, São Paulo. Augusto was still apprehensive because everything was new, but he was convinced it would be worth the risk. So, the next day, he contacted Marina and arranged for the course to take place between December 16th and 18th, 2019, since it was the end-of-year vacation period at the municipal clinic where he worked.

From Consumer to Producer

Gourmet popcorn production. There, he learned about the artisanal popcorn production process, which, contrary to what he thought, was not popped with oil or butter; nor was the corn the same, since they used different types of corn. *Mushroom*, named for the popped kernel's resemblance to a mushroom. *Mushroom corn* is suitable for making *gourmet popcorn* because its hull is thinner, resulting in larger, crispier, and more productive popcorn, as about 85% of the kernels pop during heating.

During the course, Marina also explained the importance of the popcorn popper, an essential device for properly mixing the kernels at the right temperature. It took Augusto several tries to get close to Marina's popcorn, especially when it came to preparing the caramel, one of the determining factors in the sweet popcorn's flavor.

Upon returning to Cuiabá, three days after completing the course, Augusto pondered future possibilities for popcorn production. Ideas for different flavors were constantly popping into his mind, until, almost suddenly, the name "PIOCANDO" came to him. He was determined; he knew what to call his venture! However, his brother Pedro's words also echoed like a constant reminder in his mind: "*Don't put the cart before the horse...*" was what he had said during the first conversation with the family.

So, he decided to grab his phone and use the calculator to make a basic expense estimate. To test the recipe, he calculated how much it would cost to purchase an initial quantity of raw materials. Considering that *mushroom corn* wasn't sold in Cuiabá, he would need to purchase it online, which would entail an additional cost due to the shipping costs to bring the corn from São Paulo. After doing the math, he decided it was worth buying the corn and giving it a try; he would use the extra money he had received that month for his vacation.

The order arrived in the first week of January 2020, and soon after, Augusto arranged a tasting session with his family and three close friends. Since he didn't have all the necessary utensils, he used what was available in his kitchen. Three flavors were prepared and offered: Ninho milk, Ninho milk with Nutella, and a chocolate truffle. He received constructive feedback from his guests, with suggestions for adding more Nutella and reducing the amount of cocoa.

Family and friends were unanimous in their verdict, approving the samples. However, having already gained some experience, Augusto noticed that the popcorn didn't achieve the same crunchiness as the popcorn he made during the course in Campinas. He attributed this to the lack of the pan Marina had recommended. So, after the tasting session, Augusto opened the notes app on his phone and typed:

1. Buy the electric popcorn maker.
2. Undertake other training.
3. Looking for a place to open a store?

Since his focus was on perfecting his popcorn preparation technique, he wasn't yet clear on how he would sell the popcorn. However, considering that this third step would require a larger financial investment, he decided to postpone this decision, especially since he was planning to start selling it in the coming months.

In the last week of January, Augusto sent Marina a *WhatsApp* message. He wanted to explore the feasibility of a second course in February of that year, during the Carnival break. However, Marina informed him that she had a trip planned for that period and suggested he consider taking a course taught by her coworker and friend, Júlia, someone she recommended because she trusted the quality of the teaching.

Like Marina, Júlia also lived in another state, which meant Augusto had to travel to Brasília, DF. Júlia specialized in both sweet and sour popcorn. Furthermore, her course was geared toward intermediate cooks, who should already have some knowledge of *gourmet popcorn production*. Since he considered himself qualified, Augusto contacted Júlia and scheduled the course in Brasília for February 26th and 27th.

In the following weeks, while browsing the internet for an electric popcorn maker, Augusto read on a news portal that Brazilian travelers from Asia had arrived in Brazil infected with the same virus that had been causing deaths in China since December 2019. Although this posed some danger, he nourished himself with positive thoughts and continued with his goal of buying a popcorn maker. The appliance was more expensive than a manual stovetop popcorn maker, but Augusto was still aware that it was within the price range for items labeled "professional."

When the scheduled time for the course arrived, Júlia and Augusto traveled to the country's capital. In this second training session, he perfected his caramel-making techniques, learned a new method for applying toppings to popcorn, and learned how to package popcorn in a way that made it more visible and appealing. On the second day of the course, Júlia demonstrated the production of sweet and sour popcorn, which combined both savory and sweet ingredients; the flavor combinations were limitless and varied according to the cook's imagination. Augusto concluded the final day of the training eager to test the possibilities, with several ideas buzzing in his head.

The following day, February 28th, while waiting for his flight back to Cuiabá, he created several logo options for the popcorn shop using a smartphone app. He sent the ones he considered best to Lauro, one of his best friends, asking for help in selecting the best option. During his brief stay at the airport, he overheard nearby passengers discussing a sharp increase in COVID-19 cases in several Brazilian cities, including Cuiabá.

A few hours later that same day, he landed in Cuiabá feeling apprehensive. As he headed home with his brother, who had picked him up at the airport, he noticed an air of uncertainty in the conversations of those around him. Gas stations were crowded, with lines much longer than usual; the local radio station, which played in his older brother Pedro's car, was all about the virus and its harmful effects on people's health. The following week, the number of people infected with the virus increased substantially, and hospitals in Cuiabá issued an alert indicating they were approaching maximum capacity. The mood in the city was one of fear and concern.

Seeking to curb the spread of the virus, local authorities implemented social distancing measures. All non-essential businesses and services were required to remain closed until further notice. The public was also instructed to stay at home. Due to the nature of their work, Augusto and the other employees were instructed to stay home.

Lie? The Birth of Popcorn

Weeks later, on March 23, 2020, Augusto was watching the fourth episode of a series he and his brothers had started watching the day before. Lately, his days had beco-

me a monotonous routine, like those of most people around the world. The isolation period, initially planned to last only a few days, was reaching a month. More than that, the outlook was that this situation would continue indefinitely. As a result, Augusto and his colleagues were laid off from the dental practice where they worked.

Previously known for his energetic and restless nature, Augusto was overcome by a feeling of helplessness, as he found himself unable to work and use his salary to carry out his plans for the popcorn shop, as he had planned. Amidst the boredom that hung in the air, his younger brother, Matheus, proposed: “- *Augusto, you could make some popcorn for us to eat while watching the next episode, right?*”

Enthusiastically, Augusto quickly replied: “- *What if I started just like that? If I made popcorn and started selling it now, would you be willing to help me?*” *I’m already broke, broken, and a little more won’t make a difference,*” he laughed to himself. Since free time was what they had most of at the moment, Matheus was willing to help his brother.

So, even with little money available, coming only from the termination of his practice, Augusto used this money to purchase the missing ingredients and to buy more packages of *mushroom corn*, since the remaining quantity from the trial period wouldn’t be enough to prepare several recipes. Augusto also asked his parents if he could continue using his home kitchen as a production space, as well as using the iFood platform for sales and deliveries. “*If it doesn’t work out, at least I won’t have spent even more money to set up a physical store,*” and in hiring a person to help with production,” he thought.

The next day, after his parents’ approval, Augusto took the initiative to order the ingredients he needed at a local market. He also took the opportunity to contact Lauro, one of his three closest friends; the friend worked professionally at a printing company, which was exactly what Augusto needed. Although the printing company was temporarily closed, Augusto knew that Lauro was close to the owner and, therefore, could help him. At his request, Lauro managed to persuade his boss to lend him the key to the company, allowing the printing of the materials to take place, as well as the ordering of appropriate plastic packaging for food, from one of the printing company’s suppliers.

With the weekend approaching, Augusto and Matheus began the decisive test to finalize the flavor menu. Since they weren’t aware of any company in Cuiabá

that sold *gourmet* sweet popcorn similar to theirs, they weren't entirely sure which flavors would please the palates of local consumers. They decided to test several options, and in the end, nine options were successful. These options included the three flavors they'd already tested in January: Ninho, Ninho with Nutella and chocolate truffle, as well as new flavors like paçoca, passion fruit mousse, Oreo, Romeo and Juliet, and lime caipirinha.

On the penultimate day of March 2020, the popcorn was ready, packaged, and branded by his friend. The popcorn bags were arranged in Augusto's garden for a photo shoot; these photos, along with those taken during the training courses, were used to set up his "store" on iFood, as well as an Instagram page for the popcorn shop.

Thus, with the support of friends and family, especially his brother Matheus, on April 1, 2020, "Pipocando - *Gourmet Popcorn Shop* " finally went live on iFood. Coincidentally, it was also April Fool's Day; Augusto was amused to imagine that, for many people, a dentist specializing in *gourmet popcorn* might be a good lie.

The Growth Stage of Pipocando

On May 1, 2020, Pipocando marked a month since its launch. Augusto was excited about everything that was happening, especially since sales exceeded his expectations. The previous month, in April, Lúcia received a message from her former office colleague sharing that she had opened the popcorn shop she had been dreaming of, and she promptly ordered five bags of popcorn to enjoy and share with her family. Lúcia's daughter, who was staying at her mother's house, was thrilled when she tried the popcorn! She loved it so much that she decided to use her clothing store's Instagram page to post not only to support her mother's friend but also to say it tasted delicious; from then on, the store's followers began seeking out Augusto, placing orders daily.

During April, Augusto sent packages of popcorn to two local influencers, who approved of the product and decided to help by posting photos on their Instagram *Stories*. As a result, Pipocando's Instagram follower count grew from 300 to 1,500. Furthermore, this social media growth led Augusto to meet an entrepreneur from

Cuiabá who sold spoonable Easter eggs; after talking, they established a collaboration to sell Easter eggs filled with gourmet popcorn for Easter.

By the last week of April 2020, despite the pandemic intensifying the use of delivery apps, Augusto had to make some changes to his business. After carefully examining the accounts related to his partnership with iFood, he was certain he could no longer continue selling through the platform.

iFood charged a 12% commission fee on the total sales value, plus a 3.5% transaction fee based on the value for credit card payments. To top it all off, there was a R\$100.00 monthly fee for establishments selling over R\$1,800.00 per month. These conditions made it impossible for Pipocando to continue selling through the platform. Considering that small packages were sold for R\$12.00, medium ones for R\$18.00, and large ones for R\$25.00, Augusto knew he couldn't raise prices to offset costs; as a result, he chose to focus exclusively on using Instagram and WhatsApp as sales channels. Furthermore, he began using his own vehicle to make deliveries.

His brother, Matheus, expressed curiosity about these decisions: “ - *Augusto, don't you think this could bring more costs due to fuel?* ”

His response was: “ *I know it's not good financially, but my immediate focus isn't profit. The popcorn shop is new; my goal now is to get more people to know about it .*”

Three months later, in August 2020, news about a popcorn shop founded during the pandemic caught the attention of local media outlets. For Augusto, this resulted in invitations for virtual interviews and even an in-person interview. During the in-person interview, he took the opportunity to offer a tasting of his product to a television show host, who expressed his satisfaction with the flavor and asked him what made his popcorn shop unique.

Augusto promptly said, “ *Quality. I carefully select all the ingredients that will be used in the production of popcorn. Furthermore, I participate and monitor the entire production process, from the selection of corn kernels, choosing only those that meet the expected standard, to packaging and delivery to the customer .*”

Some time later, in December 2020, Augusto decided to expand his popcorn flavor range by producing salted popcorn. To achieve this goal, he sought new training with Júlia, but this time through *online mentoring* due to the pandemic. The

salted popcorn production combined a variety of spices, such as peppers, herbs, cheeses, truffles, and olive oils, and could also be enjoyed with beer, champagne, wine, and cocktails.

After completing the course, Pipocando kicked off 2021 with these new options on its menu. In addition to the ten flavors available, customers could now choose from Mexican Doritos, bacon farofa with pork rinds, and a combination of caramel, fleur de sel, and nuts. For Augusto, the freedom to create and reinvent himself through popcorn had a deeper meaning than just making money; it was a form of personal expression.

The “End” of the Pandemic

In May 2021, with the end of the pandemic, Pipocando’s sales were no longer reaching previous levels, as sales volume had decreased by approximately 40% compared to the same period in 2020. With the easing of social distancing measures and the return of business activities following the start of the COVID-19 vaccination campaign, several establishments reopened their doors. Augusto imagined there could be several reasons for what was happening at Pipocando, one of them being a change in consumer behavior. During the pandemic, people were in a period of seclusion, but with the end of social distancing, more options for eating emerged, with many opting for establishments that offered some form of social interaction.

The drop in sales wasn’t exclusive to the popcorn shop. Augusto noticed that other businesses that emerged during the pandemic and relied on delivery were impacted, some even closing their doors. For Augusto, Pipocando couldn’t suffer the same fate; after all, he had invested all of the popcorn shop’s profits into renovating the back of his house and creating an industrial kitchen.

In addition to labor and construction material costs, Augusto equipped the space with an industrial stove, refrigeration equipment, countertops, pans, and high-quality utensils, as well as maintaining a stock of supplies for *gourmet popcorn production*. However, closing the doors at this time would not only be a financial loss, but also a kind of defeat; after all, many nights of sleep, precious moments with family and friends, training courses, and expectations were invested in the business.

In June 2021, despite uncertainty and fears about what might lie ahead, Augusto packed some popcorn in his car and drove through the streets of the capital. His goal was to introduce his product to established coffee shops, bakeries, and bistros in the Cuiabá market. While offering the popcorn for tasting and approaching potential partners, Augusto discussed the factors that allowed the business to survive during the pandemic. For him, the variety of flavors on the menu, the responsive service, and the investment in professional studio photography were crucial to its success, as the popcorn shop had a strong social media presence, boasting over 6,000 followers.

The reactions he received from the establishment owners were predominantly positive. Of the five locations he visited that week, three agreed to purchase a portion of the product. For testing. At the same time, Augusto decided to focus on providing personalized service. With the end of isolation, hosting birthdays and corporate events emerged as a potential sales segment.

By January 2022, Pipocando's situation had improved thanks to popcorn sales and personalized service at events, although direct sales to consumers remained below the previous year's figure. Promotional activities on holidays such as Valentine's Day, Children's Day, and birthdays in general drove significant demand. In addition, Pipocando already had six resale points, including two renowned sweet shops in Cuiabá, Magrellos and Baba de Moça.

For Augusto, these partnerships were a promising sign that Pipocando was managing to stay afloat and, little by little, gaining more visibility in Cuiabá. It seemed that, finally, the turbulent period had ended, and Augusto could now breathe easy again.

Popcorn Maker or Dentist? That is the Question

The arrival of April 2022 had special meaning for Augusto, as it marked Pipocando's second year. Despite the challenges he faced, he felt proud of the journey he had made thus far, which gave him a glimpse into the popcorn shop's future projects and goals.

Augusto intended to launch the following month, May 2022, a line of popcorn that was in the testing phase, *gourmet popcorn Fitness*. This line would be a healthy dessert option for people who were trying to lose weight, seeking a healthy diet, or looking to balance their meals. The *fitness popcorn* not only tasted delicious, but was also low in calories and gluten- and lactose-free, making it suitable for people with intolerances. Besides launching the *fitness line*, Augusto also had other plans, such as expanding the business to other cities in the state of Mato Grosso, as he had been considering increasing his service through resale at partner establishments for some time.

On the other hand, although Pipocando had returned to an acceptable level, the previous difficulties “opened his eyes.” At times, Augusto considered that the popcorn shop might close and that he would have to return to his career in dentistry. However, this scenario wasn’t so simple for him, considering he had been away from his dental practice since the beginning of the pandemic in 2020. So, that same April, Augusto approached Lúcia, his former coworker, and asked for her opinion on an idea he had been thinking about. Augusto told his colleague that he was considering specializing in facial harmonization as a way to stay at least somewhat up to date in the dental world. Lúcia, who was working at a renowned dental clinic in Cuiabá, commented: “ *I think it’s a good idea, my friend! Your popcorn is a success, but really, no one knows what tomorrow will bring. It’s always good to have an ace up your sleeve.* ” and added: “ *- In the office where I work, the owner is a specialist in this area and is looking for good dentists to collaborate with her services, which, by the way, are increasingly in demand .”*

The day after his conversation with Lúcia, Augusto was surprised by a call from an unknown number; upon answering, he heard a female voice. It was Olga, the owner of the clinic where Lúcia worked. Olga clarified that Lúcia had informed her about him and his history, and also confirmed whether Augusto was interested in taking the facial harmonization refresher course. Upon receiving confirmation, Olga said she would be teaching a specialization course at her clinic the following month and was willing to offer him a spot. However, this offer came with one condition: Augusto would be exempt from tuition fees provided he worked full-time at the clinic for five months, which represented half the duration of the specialization course.

At that moment, Augusto felt a mixture of happiness and concern. He asked Olga for two days to respond, explaining that he intended to speak with her family first to understand what this meant for her popcorn shop. Olga accepted without much hesitation. Later that day, Augusto met with Matheus, Pedro, and Sofia, his niece, who was 16 at the time.

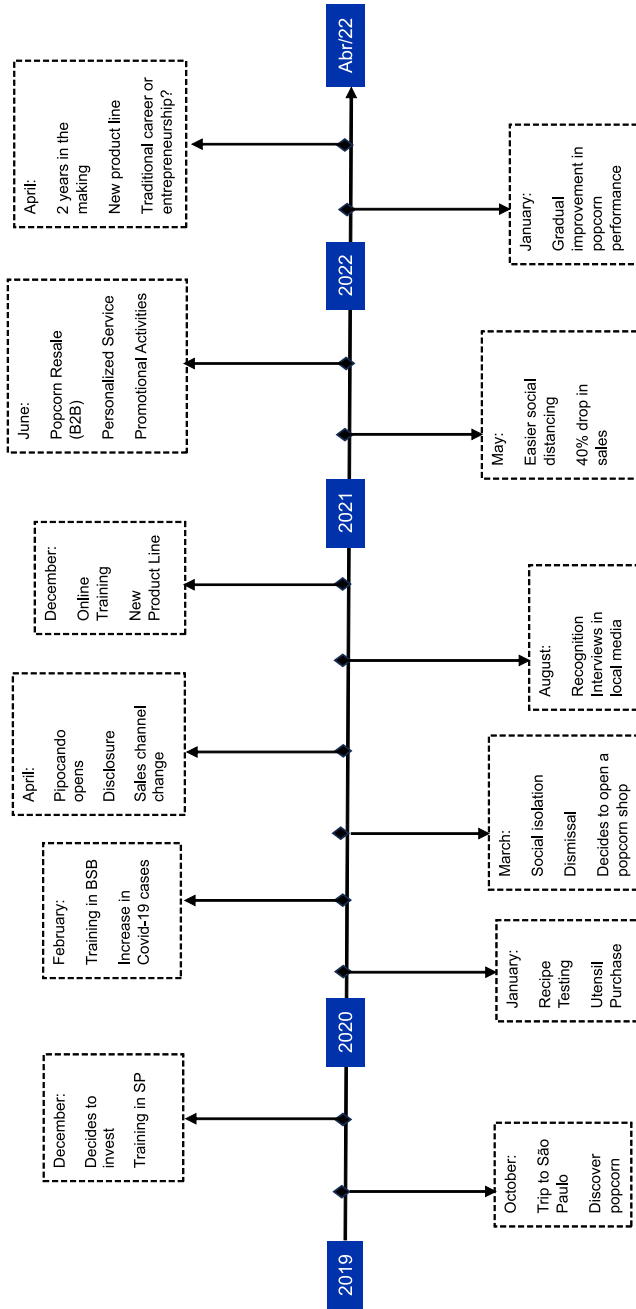
Augusto reported receiving an offer from Olga, which had caught his attention. He explained that he was facing a dilemma, as he was interested in the proposal, but he was also concerned about the future of Pipocando. Augusto approached Pedro, asking if Sofia could work at the popcorn shop after school; then he turned to Sofia, asking if she was interested in the opportunity, considering she would be paid for it, as was Matheus. Both father and daughter responded positively. Pedro now clearly understood that Augusto had made the right choice in investing in the idea of selling popcorn two years ago. Matheus shared this sentiment and emphasized that this opportunity was promising and advantageous for Augusto's future. However, he had only one concern. He had recently started his third year of law school, and this was a stage recognized by students as the beginning of the most challenging and demanding phase of their undergraduate studies. So, Augusto asked himself: "*What do I do?*"

He needed to get back to Olga in two days. He understood he was going through a crucial period in his career, and that his choices would have direct repercussions on Pipocando's future. So what now? What would be the most appropriate path to take? Return to his traditional career or continue his entrepreneurial journey?

Appendix A – Characters and Main Actions

Dimension	Case Information
Main characters in the case	Augusto – entrepreneur and owner of Pipocando
	Lucia – former coworker
	Matheus – Augusto's younger brother and assistant
	Pedro – older brother
	Marina – instructor of the first course held
	Julia – instructor of the second course
	Lauro – best friend who worked in a printing shop Olga – owner of a renowned dental clinic
Main actions taken to make the business viable	Carrying out training courses and acquiring the necessary supplies and utensils.
	Recipe/tasting test for family and close friends seeking feedback to improve the product.
	Investment of the money from the termination of the practice to start.
	Sending popcorn to local influencers – increasing your network and establishing partnerships with niches close to yours.
	Change in the sales channel and delivery using our own vehicle, seeking to avoid an increase in the price of popcorn.
	Investing in the popcorn shop's image and promotion. Professional photos, a strong social media presence, and interviews with local media outlets.
	Investment in training with the aim of innovating and enabling the launch of new product lines.
	Investment in the construction of an industrial kitchen at the back of your house.
	New change in the sales channel, now using resale for already consolidated ventures in Cuiabá (B2B).
	Personalized service for parties, corporate events, and special occasions in general.

Appendix B – Timeline



Teaching Notes

Learning Objectives and Recommended Use

The learning objective of the case is to analyze entrepreneurial action based on the combination of causation and effectuation processes. This case was developed for Technical Courses integrated into Secondary Education within the scope of Vocational and Technological Education (EPT), which provides a brief introduction to EPT. According to the Law of Guidelines and Bases of National Education, Vocational and Technological Education is a teaching modality that “integrates the different levels and modalities of education and the dimensions of work, science, and technology” (BRASIL, 2023, p. 1). EPT prepares students for professional practice by offering initial and continuing education or professional qualification courses, secondary-level technical vocational education, and undergraduate and graduate technological vocational education.

A network of federal public EPT institutions, represented primarily by Federal Institutes, brings together more than 650 units and approximately 2 million enrolled students (MEC, 2022). Courses linked to the Management and Business technological axis account for a significant portion of the enrolled students, approximately 250,000 (MEC, 2022). Management and Business disciplines are also offered in courses in other technological axes, which increases the scope of professional practice for EPT Administration faculty. Despite the significant funding and widespread reach of EPT, there remains a need for teaching opportunities that include integrated technical courses at the secondary level.

To bridge this gap, this teaching case utilizes relevant resources to meet the target audience at this educational level, typically students between the ages of 15 and 18. In addition to the suggested application that considers these characteristics, the educational objective of the case aims to disseminate the theoretical lens of effectuation within the EPT framework. Therefore, the case is recommended for use in Management and Business courses, such as Entrepreneurship, or any other courses that address entrepreneurial action in technical courses integrated into high school.

Table 1 highlights the fundamentals for the implementation of two technical courses in the Management and Business area, and is useful for exemplifying how EPT professors, from these and other courses, can link the application of the case to the implementation of the course.

Table 1. Fundamentals for working in technical courses in Management and Business.

Technical Course	Fundamentals for action
Administrative Technician	Knowledge and expertise related to the administrative area, acting in accordance with legislation and conduct guidelines, as well as occupational health and safety standards, guided by entrepreneurial and innovative actions, with a focus on generating new business opportunities and income generation; Professional practice based on commitment to the needs, desires, and perception of the social reality of clients, in addition to respect for diversity and sustainability.
Trade Technician	<i>Knowledge and expertise related to the operation of the commercial and service provision area, in order to act in accordance with legislation and conduct guidelines, as well as occupational health and safety standards; Proactively acting in product and service marketing activities, with an entrepreneurial vision, clear and cordial communication, commitment to the needs and desires of customers, and respect for other stakeholders.</i>

Source: MEC (2023).

Finally, the level of difficulty of the case considers the level of training. Table 2 presents the level of difficulty of the case according to the dimensions proposed by Lenders and Erskine (1989).

Table 2. Case difficulty level.

Dimension	Difficulty level	Justification
Analytics	2	The case description clearly exposes the problematic situation; however, the resolution is not presented.
Conceptual	1	The case demands an analysis based solely on a theoretical approach, which is easy to understand.
Presentation	1	Relevant information and data are presented clearly and in an organized manner in the case narrative.

Source: Prepared from Leenders and Erskine (1989).

Sources and Collection Methods

The narrative illustrates a real-life case, authorized for publication by the entrepreneur and main character of the story. The real names of the entrepreneur, his popcorn shop, and his family have been changed to protect their privacy.

The case selection began with a search of online newspapers, which yielded two relevant cases. Subsequently, the entrepreneurs mentioned in both newspapers were contacted for a brief conversation. However, considering that the author of this article tried Augusto's *gourmet popcorn during the pandemic in 2020, the gourmet popcorn shop* was the best fit for the proposal. After the selection, a 30-minute virtual interview was conducted with the aforementioned entrepreneur. Additional information was obtained through email exchanges and instant messaging apps, as well as news portals with articles about the entrepreneur. Finally, the company's social media channels provided additional information to confirm or complement the data obtained in the interviews.

Suggested Application Plan

The suggested application of the teaching case is organized in Table 3, totaling two 50-minute classes. A whiteboard or board is recommended for discussion of the proposed questions.

Table 3. Steps for applying the case.

Stage	Description	Estimated time
Opening	The teacher will explain the dynamics of applying the case, answering any questions students may have. Students must form teams of up to five people.	5 minutos
Revision	Use of audiovisual material to recap the theoretical approach that will permeate the discussion of the case	5 minutes
Reading	Students will read the case in class.	30 minutes
Discussion	Students will discuss in groups what they understood about the case, highlighting the answers to the suggested questions.	10 minutes
Plenary - table 1	With the help of the students, the teacher will lead the discussion and fill out the table, summarizing the case, the characters, and the main actions taken to make the business viable. (Appendix A)	15 minutes
Plenary - table 2	The teacher will lead the discussion and completion of the table, creating a timeline based on the events identified in the previous table. (Appendix B)	5 minutes
Plenary - table 3	The teacher will lead the discussion and completion of the table, highlighting points for and against one or the other choice for the dilemma.	5 minutes
Plenary - table 4	The teacher will lead the discussion and completion of the table, pointing out the case's relationships with effectuation and causation.	20 minutes
Closing	The professor will conclude the discussion by recapping the main points raised and their connection to the theoretical framework adopted. The case's outcome is presented at the end.	5 minutes

Source: Prepared by the authors (2023).

Suggested Theoretical Approach

According to Fisher (2012), beyond understanding individual traits and characteristics, understanding the actions and decisions that integrate the logic of entrepreneurial behavior is a field of study that has been gaining relevance. In this sense, based on the results of her doctoral research, where she observed how a sample group of entrepreneurs responded in a hypothetical scenario of opening a new organization, researcher Saras Sarasvathy proposed two approaches that can be addressed to understand the decision-making process: *effectuation* logic and *causation* (SARASVATHY, 2001), which can be translated as causation and effectuation.

Since then, other works have been dedicated to deepening the understanding of the topic, such as, for example, the survey by Dias, Iizuka, and Vilas Boas (2019), which presented the main productions on the subject, from the seminal work by Sarasvathy in 2001, to those prepared in 2019. However, despite different studies encompassing the topic, the view of *effectuation* as a theory is not a unanimous understanding among the academic-scientific community, which indicates that there is still room for debates and future studies (COUDOUNARIS; ARVIDSSON, 2019, DIAS; IIZUKA; VILAS BOAS, 2019).

Thus, Sarasvathy (2001), when presenting *effectuation logic*, aimed to propose a new way of observing the decisions made by entrepreneurs when starting a new business. Sarasvathy realized that entrepreneurs do not always use planning, market analysis, and risk-overcoming strategies, despite this being what is taught in business management courses, which the author conceptualizes as *causation*, in your article. This context occurs mainly when observing the reality of micro and small companies that often face a scarcity of resources and a lack of access to systematized information (COUDOUNARIS; ARVIDSSON, 2019; CHANDLER *et al*, 2011).

The causation approach derives from neoclassical economic models and their precepts of rationality for decision-making (PERRY; CHANDLER; MARKOVA, 2011), as well as being supported by Kotler's (1998) postulates for the insertion of products and services in a market (COUDOUNARIS; ARVIDSSON, 2019). The ventures resulting from the *causation process* are characterized by structured business models, strategic planning, substantial investments in market research, development, and analysis of the product even before the start of operations (SARASVATHY, 2001).

A priori establishment of a clear objective or desired result for the product or service. The only remaining step is to select the most appropriate means to achieve the desired result as quickly, economically, and with the highest possible return (SARASVATHY, 2003). Thus, decision-making based on causal reasoning consists of determining the purpose to be achieved, identifying and evaluating alternatives, and assessing restrictions or limitations that may influence the selection criteria for these alternatives, with the aim of achieving the previously established objective (SARASVATHY, 2001).

In the effectuation approach, Sarasvathy (2001) argues that most of the time, entrepreneurs do not go to the market to identify what is missing and then offer a solution. Most new businesses arise from an individual's need to change their financial reality, either by personal desire or even by chance. This does not mean that the heuristics used in the effectuation process are full of rationality. Sarasvathy (2001) highlights that, sometimes, entrepreneurs use both decision-making approaches in the same situation.

But what if the desired product or service is something unknown or not yet explored by the market? How can we obtain data to predict the future? (SARASVATHY, 2003). The logic of implementation establishes that these conjectures are developed from the interaction with the other actors in the process and through experimentation (FISHER, 2012), changing over time, according to emerging opportunities and contingencies (PERRY, CHANDLER, MARKOVA, 2011).

Therefore, for *effectuation*, the final objective is not given or merely identified; rather, it is created according to the means and alternatives available to the entrepreneur, who can then generate a desirable effect among the various possible ones (SARASVATHY, 2003). Thus, instead of worrying about predicting something unknown, the entrepreneur turns his attention to what is within his control, dealing with dilemmas as they arise (SARASVATHY *et al*, 2014). In this sense, according to Sarasvathy (2001; 2003), *effectuation* is composed of a focus on means, rather than ends, as well as the combination of these means with four basic principles.

The means can be grouped into three categories: the individual's ability to understand who he is, the recognition of what he really knows, and the identification of who he knows (SARASVATHY, 2001; WILTBANK *et al*, 2006). Therefore, "based

on who I am, what I know and who I know, what can I do?” (SARASVATHY, 2003, p. 208). Table 4 presents the set of means mentioned:

Table 4. Determining the set of means.

Means	Singularities
Who am I?	Internal characteristics, values, personality, traits, skills
What do I know?	Previously acquired knowledge, education, skills, and techniques
Who do I know?	The social environment in which you live, contact networks, family, and colleagues

Source: Prepared from Sarasvathy (2001).

According to Chandler *et al* (2011), the use of these means to create desirable results allows the individual to be more agile and responsive to changes, providing greater flexibility and adaptability to the entrepreneurial process. However, it is worth highlighting that the mere use of these attributes does not mean that the entrepreneur will be successful in the intended activity (SARASVATHY, 2001). What is understood by the effectuation approach? Is that “if new firms created through *effectuation processes* fail, they will fail early and/or with lower investment levels than those created through *causation processes*” (FISHER, 2012, p. 1025). Therefore, *effectuation* does not reduce the probability of failure, but reduces its cost to the entrepreneur (SARASVATHY, 2003).

This perspective corroborates the first principle of the *effectuation process*, the loss borne or acceptable risks. It is true that no one starts a project expecting failure; however, Sarasvathy (2001) argues that entrepreneurs who follow the logic of effectuation set a limit on what they are willing to sacrifice for the sake of the business’s survival.

This assumption reflects decisions made based on the entrepreneur’s agreement with himself and/or the parties involved, regarding the tangible resources (material goods, inputs, capital, equipment) and intangible resources (time, expectations, well-being, leisure) that he is willing to give up (CHANDLER *et al.*, 2011). This implies prioritizing strategies that increase future opportunities, rather than focusing only on those that can provide a greater financial return (SARASVATHY, 2001).

Additionally, the second principle is related to the pursuit of strategic partnerships as opposed to the emphasis on competition (SARASVATHY, 2001). According to Sarasvathy (2023), the fundamental premise is that entrepreneurs do not always have advanced knowledge of the target audience or competitors they will face, which diminishes the importance of a predictive analysis of the market scenario. This contrasts with the causal approach, which focuses on forecasting and market competition (SARASVATHY, 2001).

Effectuation process, according to Sarasvathy *et al.* (2014),

It leverages partnerships as the central method for expanding resources. Rather than engaging in extensive planning and research to identify specific stakeholders to target based on preselected objectives, an effective approach requires entrepreneurs to quickly engage in conversations with a variety of people they already know or have connections with, some of whom end up committing to the new venture (SARASVATHY *et al.*, 2014, p. 74).

In other words, entrepreneurs seek support from social connections to gain valuable perspectives in developing their idea. The individuals involved in this phase may be family, friends, colleagues, potential collaborators, or even casual acquaintances (WILTBANK *et al.*, 2006). These actors, which Wiltbank *et al.* (2006) call the cycle of effective resources, can influence, interfere with, and even co-create the effect to be generated, together with entrepreneurs. Thus, it is by using these partnerships and alliances that entrepreneurs face uncertainties and exercise some control over the future (SARASVATHY, 2003).

In the third principle, Sarasvathy (2001) discusses the relevance of exploring adversities rather than trying to avoid them. While in the causal process, contingencies are events that create an undesirable scenario for a company and, therefore, must be prevented. In the *effectuation approach*, unplanned situations have the potential to give rise to new opportunities (SARASVATHY, 2023).

Acquiring knowledge through uncertainty and leveraging these conjectures to benefit the business is a fundamental aspect of the execution process. (WILTBANK *et al.*, 2006). Given that entrepreneurs often operate in highly uncertain contexts, the philosophy of effectuation suggests that they can gain advantages by embracing surprises (SARASVATHY *et al.*, 2014).

The fourth principle emphasizes the logic of control rather than prediction, especially when considering a reality in which the influence of human action is predominant (SARASVATHY, 2001). This idea encapsulates the essence of the *effectuation approach*, giving priority to the controllable elements of an unpredictable future, instead of focusing on the predictable elements of an uncertain future panorama, as is characteristic of causal logic (SARASVATHY, 2001).

This means that the entrepreneur is not only the agent who suffers the action, but also the one who imputes it, while dealing with contingencies (SARASVATHY, 2023). Table 5 summarizes the comparisons between the characteristics of *effectuation* and *causation logic* :

Table 5. *Contrasting Causation and Effectuation.*

Differentiation categories	Causation	Effectuation
Means	The effect is given.	Only a few means are provided.
Decision making	Helps to decide between the means to achieve the desired effect.	It helps to decide between possible effects that can be created with available means.
Selection criteria	Selection criteria based on expected return. Effect/environment dependent: choice of means is driven by the characteristics of the effect the decision maker wishes to create and by his or her knowledge of the possible means.	Selection criteria based on affordable loss or acceptable risk. Dependent on the person/human action: given the specific means, the choice of effect is driven by the characteristics of the individual and his or her ability to discover and use contingencies.
Skills employed	Exploitation of the knowledge available.	Exploration of contingencies.

Nature of unknowns	Focus on the predictable aspects of an uncertain future.	Focus on the controllable aspects of an unpredictable future.
Fundamental logic	To the extent that we can predict the future, we can control it.	To the extent that we can control the future, we do not need to predict it.
Results	Participation in existing markets through competitive strategies.	New markets are created through alliances and other cooperative strategies.

Source: Adapted from Sarasvathy (2001, p. 251).

Although the concepts of causation and effectuation processes can be explained in contrasting ways, it is important to emphasize that there is no relationship of superiority or exclusion between them (SARASVATHY, 2003). The opposing approach is characterized as a strategy used to facilitate the understanding of both decision-making processes; by presenting the characteristics in opposite ways, it becomes more visible how these approaches operate in human reasoning, in contexts that are more appropriate (SARASVATHY, 2001).

Furthermore, Sarasvathy *et al.* (2014) argue that both *causation* and *effectuation* are variables that make up the human decision-making process, acting together or alternately in various circumstances, depending on specific needs. For example, when an entrepreneur starts a project in an environment of uncertainty and lack of information, they tend to adopt the logic of effectuation. On the other hand, over time, upon entering a more stable environment, amenable to measurement and prediction, causal logic may be more widely used (SARASVATHY, 2001; PERRY; CHANDLER; MARKOVA, 2011).

Discussion and Analysis of the Case

Question 1 – If you were in Augusto’s shoes, what decision would you make?

There is no right or wrong answer to this question; we suggest discussing both options, highlighting their pros and cons.

Decision A - Not accepting the job offer and continuing to work solely as an entrepreneur: To support this decision, several points can be highlighted, such as the character's personal characteristics (proactivity, determination, willingness to take risks) and his ability to work with external stakeholders to overcome difficulties and maximize opportunities. From a financial perspective, the investments in various training courses and the establishment of an industrial kitchen stand out, aiming to increase production and sales. It's also important to mention that the popcorn shop provided Augusto with the opportunity to express his creativity, something he missed when working in the formal market.

Decision B - Accept the job offer: To support this decision, it's worth highlighting the predictability and financial stability that come with having a job, whereas, as an entrepreneur, income can fluctuate depending on the business's performance. Furthermore, Augusto could try to balance his new business with managing the popcorn shop by hiring production assistants and/or reducing sales volume during periods of exclusive dedication to the dental clinic.

Question 2 – Identify events or decisions reported in the case related to the effectuation approach.

According to Sarasvathy (2001), the *effectuation approach* emphasizes the actions and choices made by entrepreneurs primarily when starting their businesses. Effectuation follows a logic of control rather than prediction, given the future scenario. In this sense, in the creation of Pipocando, it is possible to observe events and decisions made by the character that are consistent with the primary aspects of *effectuation*, in the following moments, as shown in Table 6.

Table 6. Events and decisions related to implementation.

Decision/Event	Details	Carrying out the process
I always knew I wanted to start a business.	A determined and agile person, a dentist by training, but with a passion for sweets, which influenced his choice.	Who am I?

Sell gourmet popcorn.	He discovered popcorn during a leisure trip with his friends and decided to buy it and take it to Cuiabá.	What do I know?
Learn how to make gourmet popcorn.	He completed several training courses in other states to perfect his technique.	What do I know?
Talk to coworkers, family, friends, and strangers.	He took advantage of the people he knew to create a network of contacts that helped him create and develop the business.	Who do I know?
He invested his dentist's salary in the popcorn shop.	He used his salary from dental work to finance/cover the costs of training, materials, and equipment. After being fired, he used part of the severance pay to actually get started.	Loss borne.
He partnered with other actors who worked in a market close to his, and also asked family and friends for help.	He partnered with an entrepreneur who sells Easter eggs, sweet shops, cafes, and bistros and is already established in the Cuiabá market, in addition to using friends and family to help create the menu.	Partnerships instead of competition for market share/ Who do I know?
The business started during the COVID-19 pandemic.	He planned to open the popcorn shop in 2020, but he hadn't yet decided whether to sell the product in person or via delivery. With the advent of the pandemic, he made that decision.	Exploring adversity rather than trying to avoid it.
Open a popcorn shop without knowing how to make gourmet popcorn;	During the creation and development of the popcorn shop, he was sometimes unsure if what he was doing would work. But he forged ahead anyway and is still operating in the market today, in 2023.	Control logic instead of predicting/ exploiting adversities

Source: Prepared by the authors (2023).

Question 03 – How do the logics of causation and effectuation relate during Augusto's decisions?

Although the concepts of causation and effectuation processes can be explained in contrasting ways, it is important to emphasize that there is no exclusive relationship between them (SARASVATHY, 2003). In the case of teaching, some situations were reported to clarify attitudes related to effectuation, but decisions made by Augusto that better align with the causal approach were also highlighted.

Pre-pandemic decisions included investing in training to learn how to develop the product before starting the business; making a basic expense estimate to determine whether it would be worthwhile investing in purchasing raw materials; and gradually acquiring inputs, tools, and materials according to budget availability. Therefore, both approaches are complementary and integrate human reasoning. The choice between one or the other will depend on the individual's situation, the internal and external conditions of the environment in which they are inserted, as well as their personality and the means they have to achieve their goals.

Outcome of the Case

After receiving the offer, Augusto decided to accept the dental clinic's proposal while also maintaining the popcorn shop. To make this possible, he dedicatedly trained his younger brother and niece to work on popcorn production, direct-to-consumer sales (B2C), and deliveries to resellers (B2B). Meanwhile, Augusto continues to manage the business, handling finances, legal matters, marketing, and social media advertising, as well as customer service.

Furthermore, Augusto reported that he currently sells his popcorn to more than 10 cities in the interior of Mato Grosso, including Poconé, Primavera do Leste, Lucas do Rio Verde, Sinop, Diamantino, and Campo Novo do Parecis. The popcorn shop owner is pleased with his decision and the performance of his business, which, in 2023, has gained a total of 19,000 followers on his Instagram page, offering a menu with 19 flavor options. As part of his future plans, he plans to launch his own popcorn-making training program in the state of Mato Grosso.

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