ENTREPRENEURIAL SELLING: CHALLENGES OF AN ENTREPRENEUR WHO WANTED TO SAVE LIVES

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Abstract: This case portrays the real challenges faced by Dr. Paulino Souza Neto, a vascular surgeon, radiologist, and inventor of technologies in the healthcare sector aimed at patient safety. It aims to place the student as a decision maker for an early-stage venture, highlighting one of the most common and least studied challenges in entrepreneurship: the importance for the founder to have sales skills. The case is narrated according to data collected in interviews with the protagonist. The case analysis will help students to approach a relevant professional situation and to apply concepts related to developing customer selection criteria and executing an effective sales plan in a resource-limited setting. The case can be applied to the subjects of Entrepreneurship and Small Business Management in undergraduate and graduate courses.

Keywords: Sales. Start-up. Entrepreneurship.

Introduction

In January 2019, Dr. Paulino Souza was at his clinic, Oito de Agosto, in São Paulo, preparing for his subsequent vascular surgery. His entrepreneurial dilemmas had to be set aside, but he could not stop thinking about his challenges. From 2010 to 2018, he invested all his extra time and savings to find a way to reduce the number of "never events" in the Brazilian Healthcare System.

Never events[1] were avoidable severe and costly errors in providing healthcare services. However, human errors such as operating on the wrong part of the body, leaving surgical material inside the patient, incorrect diagnoses, failure to prescribe the correct dosage of medication, not registering relevant information on medical charts, and forgetting to sanitize one's hands still occur in Brazil and cost many lives every year. With two products based on RFID technology, Dr. Paulino hoped that hospitals would want to improve control of the use of surgical instruments and monitor hand hygiene compliance levels. However, he never thought selling something that could save lives would be so hard! Even with a large potential market of more than 6,000 institutions, Paulino was not progressing with his sales effort.

In 2018, he held sales meetings with many people and received harsh feedback. Doctors did not seem willing to open their data on medical failures, and other players involved in the purchase decision expected more data security, scale, and credibility. While asking himself why he was failing, he heard the phone ring. It was time to go back to the surgical center.

[1] According to the Agency for Healthcare Research and Quality, never events are unambiguous, serious, and usually preventable medical error that should never occur.

Being a doctor and an entrepreneur was not easy. However, he had a mission and would not give up. Nevertheless, he needed a better sales strategy.

First, do no harm

Paulino's life has always been fraught with challenges. In 1975, at the age of five, he lost his father. While still a child, he decided to take a technical course in electronics and started repairing radios and record players to help support his family.

After finishing high school in 1988, he was admitted to the Marília School of Medicine in São Paulo. He discovered an unknown and terrifying evil during his medical residency: medical errors. These were human mistakes that occurred frequently, and although not all resulted in actual harm, those that did were costly. Despite the magnitude of the problem, silence surrounded this issue in Brazil. For the most part, patients believed they were protected in a safe place. Nevertheless, the truth was that many of the patients experienced disability after a medical intervention. Some paid with physical and psychological discomfort. Unfortunately, others paid with their lives. Healthcare professionals also paid with loss of morale and frustration, and Brazilians trusted their healthcare institutions less and less. In 1993, Paulino took the Hippocratic Oath to either help or do no harm: "As a doctor, I will reduce medical errors as my mission." In other industries, the worker and the company were directly affected when an accident occurred. In healthcare, the damage happens to a third party: the patient who bore practically all the consequences. Dr. Paulino empathized with the suffering of many victims and families, so he began his entrepreneurial journey.

Dr. Paulino's Mission

Twenty-five years of medical practice in São Paulo confirmed what Dr. Paulino Souza expected: never events were prevalent. In 2017, among the 19.4 million people treated in Brazilian private hospitals, 1.299 million suffered complications, and 54,769 died (Fioravanti, 2020). Apart from harming patients, these events consumed BRL 10.6 billion from the private healthcare system and extended the average number of days of hospitalization.

In the public healthcare system, these numbers were much higher. In 2010, a study at three Brazilian public hospitals analyzed 2,667 prescriptions containing potentially dangerous drugs and identified errors in 80.98% of the cases (Pedrosa & Couto, 2014). When extrapolated to all public healthcare systems, it was estimated that this type of error caused 79,000 deaths that year, with BRL 6 billion in preventable costs paid by service providers and society.

Unfortunately, all these estimates had to be made conservatively, because access to hospital data was complicated. The Superintendent of the Institute for Supplementary Health Studies stated: "*In Brazil, we have a higher proportion of never events than other countries and lack of transparency from the providers" (*Medicina S/A, 2018).

All these figures offered a very modest view of the problem, since hospital patients represented only a tiny proportion of the population at risk. Increasingly complex care was being provided in outpatient settings. Surgical centers and health clinics served thousands of patients; home care required patients to use complicated equipment, and pharmacists filled prescriptions. They educated the neighborhood, and nursing homes provided daily care for the elderly.

Dissatisfied with the current situation, Paulino decided it was not enough to simply be occupied with performing surgeries at his clinic. Between 2010 and 2016, he explored using electronic identification on surgical items. It was expected that nurses would count these items manually. If he could automate the process, he would be able to avoid errors and increase efficiency in healthcare delivery and management. In 2018, the tests performed in his laboratory demonstrated that his solutions worked.

Very enthusiastic about the opportunity to save lives, Dr. Paulino decided to invest BRL 1 million (his entire savings) in patenting his inventions and manufacturing prototypes of SureKits and ClearHands.

SureKits

To meet the legal standards of traceability, Dr. Paulino Souza installed RFID Tags on surgical instruments to obtain usage data. Most healthcare institutions controlled these instruments manually, which generated maintenance errors and decreased the quality of surgeries.

Figure 1 - Manual counting of surgical instruments

Source: Photo taken by Dr. Paulino

Figure 2 - Surgical instruments with RFID tags

Source: Photo taken by Dr. Paulino

SureKits was the fastest and most accurate way to track and trace surgical instruments. Developed as a solution for controlling, monitoring, and auditing sterile surgical instruments, SureKits could increase the efficiency and safety of surgical units. The prototype made it possible to quickly check whether all the necessary material was on the operating table. If something was mistakenly discarded, a warning message would be generated and sent to the sterilization data center.

With SureKits, the time required to count instruments used in the surgery decreased dramatically, and the patient's safety improved because any instrument retained in the patient's body would be detected immediately. In addition, the entire life cycle of the instruments could be monitored through SureKits. If any expired equipment was sterilized, an alert could be sent to the data center. The solution earned Dr. Paulino an award in the first edition of the IoT RFID 2017 Awards, granted by the Brazilian Association of the Industry of Radio Frequency Identification.

ClearHands

Dr. Paulino Souza believed that approximately 70% of all infections were transmitted by touch. One preventive action at healthcare facilities was the use of alcohol-based hand sanitizers. According to World Health Organization (2009) guidelines on hand hygiene, healthcare workers should clean their hands constantly before touching a patient, during cleaning procedures, after body fluid exposure, and after touching patients' surroundings. However, in Brazil, a survey conducted in 2009 by the National Health Surveillance Agency indicated that, on average, 61% of healthcare professionals did not adhere to these guidelines.

A team of direct observers routinely controlled hand hygiene compliance at hospitals. When they were out of health workers' sight, compliance decreased, and infections increased. Aware of this problem, Paulino also developed ClearHands, a solution for continuously monitoring hand hygiene

compliance (HHC). The solution delivers 24/7 control to individual health workers circulating within the healthcare facility. It is based on interactive appliances, hand sanitizer dispensers, and low-cost RAIN RFID badges.

Figure 3 - Dispenser with RFID

Source: Photo taken by Dr. Paulino

Figure 4 - Smart badge

Source: Photo taken by Dr. Paulino

Whenever the soap dispenser was used, an RFID reader placed on the device identified the employee. This reader provided information on the monitoring software installed in the data center. Thus, managers could know which employees performed the handwashing procedure before attending to their patients and which professionals attended to which patients. If anyone forgot to wash his/her hands before attending to a patient, the badge would alert the person.

The system developed by Paulino operated through Wi-Fi networks and Bluetooth connections. The software generated reports of the facility's HHC level and, when integrated with SureKits, could contribute to improving internal processes. By tracking items, people, locations, and clinical events in real-time, Dr. Paulino Souza could prevent errors in medical care and deliver benefits to healthcare facilities, including automated manual processes, electronic governance information, and reduced overload among healthcare workers.

While building the prototypes, Dr. Paulino Souza envisioned an incredible evolution of his solutions. He recorded his thoughts in his agenda: "*As soon as I start selling ClearHands or SureKits, I will have access to the institution's data, and with this, I will be able to offer new features based on artificial intelligence and predictive analytics."*

Dr. Paulino was confident that his solutions could save thousands of lives. However, he was not so sure about who his potential customers were. Defining a target market was difficult, since any healthcare institution could be his client.

The Brazilian Healthcare System

The Brazilian Healthcare system was complex and fragmented, with high demand and active government participation. Among public and private institutions were outpatient clinics, diagnostic clinics, laboratories, pharmaceutical industries, emergency facilities, health insurance providers, hospitals, and medical device manufacturers.

Across Brazil, there were over 6,000 hospitals, 70% of which were private and clustered in large metropolitan areas that were not easily accessible to most of the population. The hospital segment had

general and specialized institutions, ranging from small, low-quality public and private hospitals to world-class private and public research centers.

Private Hospitals

Brazil's leading accrediting organizations were the National Accreditation Organization (ONA) and the Joint Commission International (JCI). According to the National Health Confederation (Bueno et al., 2016), in 2015, Brazil had 6,687 hospitals (30% public and 70% private), of which only 540 (about 8%) were accredited. This contrasts with over 90% accreditation rates in the US and over 80% in Canada. ONA accredited 487 Brazilian hospitals, 70% located in the Southeast Region (composed of Espírito Santo, Minas Gerais, Rio de Janeiro, and São Paulo), and JCI accredited only 53 institutions in the same region.

Private Hospitals depended on large amounts of investment. Besides high dependence on human labor, the institutions needed resources for continuous equipment modernization and infrastructure maintenance. These institutions' profitability and cash flow depended on good management and disciplined documentation of the services provided. The private health insurance companies demanded that all items listed in the medical records be reflected in the hospital's accounting records. Given the complexity of the services provided by private hospitals, information technology was crucial. The highest quality level of Hospital Information System (HIS) was a competitive differential in Brazil, and very few private hospitals could achieve it. Without reliable data on costs, volume, outcomes, and patient characteristics, Health Insurance Providers constantly spar with private hospitals over service payment orders.

Strong competition growth between leading private hospitals as well as high dependence on private health insurance providers and material device manufacturers were straining hospitals and pushing them to seek operational efficiency.

The private healthcare market is distributed among several insurance agents, whereby the user pays either individually, collectively through groups, or with health insurance plans administered by private companies and medical cooperatives. In 2018, BRL 90.5 billion was spent to attend to 25% of the Brazilian population (Carvalho, 2018).

Health Insurance Providers

Factors such as the evolution of technology and the inefficiency of public services had driven consumers to seek private health insurance services until 2014. After the economic crisis, private health insurance providers decreased significantly – from 1,095 institutions in 2015 to 731 at the end of 2019 (Agência Nacional et al., 2020). Private Health Insurance served only 25% of the Brazilian population, with approximately 47 million beneficiaries.

Through mergers and acquisitions, health insurance providers have grown over the last ten years, forming an oligopoly. Only five players control 50% of the number of beneficiaries in Brazil, and revenue grew from BRL 92.6 billion in 2010 to BRL 168.5 billion in 2019 (Agência Nacional et al., 2020).

Other Health Institutions

Other important healthcare institutions include public and private health centers, primary care centers, family health support centers, specialized clinics, specialized outpatient clinics, polyclinics and mixed care centers, urgent care, and specialized emergency care. These institutions worked with a significant degree of interdependence, but most of them depended on public resources.

Brazilian medical device manufacturers were segmented into Laboratory (equipment, reagents, and consumables), Radiology (appliances, accessories, and consumables), Hospital Equipment (non-electric, electric medical furniture, surgical instruments, and physiotherapy equipment), Implants (orthopedics, neurological, cardiac, and others) and Consumables (hypodermic, textiles, adhesives, and others). Companies such as 3M, Baxter, GE Healthcare, Medtronic, and others sold BRL 8.6 billion medical devices in 2015 (Brazilian Health Devices, 2016).

During his research and development of SureKits and ClearHands, Paulino discovered some RFID solutions already being used in the healthcare system. In 2010, Hospital Israelita Albert Einstein in São Paulo became the first in South America to use an RFID solution for managing refrigerator temperatures. The solution was developed by NEC Brazil, a provider of converged communication and IT network tools (Kirch, 2010). In 2012, the pharmaceutical company adopted RFID to control the inventories of four hospitals (Kirch, 2010). In 2018, the multinational Bionexo, a Brazilian company specializing in digital solutions for health management, started offering systems for self-identifying inventories with RFID, environmental monitoring, and refrigerated medication management. The same year, Johnson & Johnson applied automation solutions in drug production lines, using bar codes at logistics units, in shipping boxes, and on pallets. Hospital Oswaldo Cruz applied and expanded the solution for drug tracking in the logistics area to control the dosage of medications.

These cases confirmed Paulino's expectation of reducing medical errors and evolving his solutions to address other potential markets. However, he knew his professional colleagues could pose a threat by entering health institutions. Unfortunately, many did not want to expose the actual numbers of never events at their institutions.

Doctors

Despite the advances in technological capabilities and the number of specialized professionals, medical errors continued to grow in Brazil. These failures could result in tragedies for patients and their families, prolonged hospitalization, and considerably increased hospital costs. According to the World Health Organization, admission to a hospital is riskier than traveling by plane (Da Redação, 2011). Dr. Paulino Souza reflected on the gravity of this reality: "The chances of dying in a plane crash were one in ten million, and the chances of a medical error in a hospital were one in ten."

Dr. Paulino knew that the problem affected patients, professionals, and institutions. For him, everything began in medical school, when they did not have adequate training during residency. They tended to hide the medical error instead of understanding it as part of their work. When doctors started working, they saw hospitals hiding those numbers for fear of losing their clients' trust. However, Dr. Paulino knew that healthcare institutions that did not register and identify the causes of their errors would be unable to improve their processes, as other industries did continuously. From 2000 to 2010, the number of doctors increased by 24.95%, while the population increased by 12.48%. Nevertheless, most professionals were still highly concentrated in specific geographical areas; 60% were distributed among 39 cities with over 500,000 inhabitants in the South and Southeast regions.

In Brazil, the Medical Board and its Union were forceful and acted in a very protective way. The few official medical error cases tended to fall on the professional and not the institution. The Regional Medical Board of the State of São Paulo, the largest and foremost in the nation, filed only 702 ethical-professional lawsuits due to medical errors between 2016 and 2018. During this period, 463 doctors were found guilty; most received confidential warnings and only 13 were dismissed and prevented from exercising their profession. Medical professionals suspected of committing errors could be prosecuted in three systems. The first was the Civil Justice system, through which the patient and family members could claim financial compensation from health professionals, institutions, or the State for alleged errors. The other was the Criminal Justice system, which address errors that caused damage to patients' physical integrity, such as bodily injury, involuntary manslaughter, or omission of

assistance. The third was the administrative system that involved regulatory bodies such as regional or federal medical boards, which judged infractions of the Code of Medical Ethics, whose penalties could range from a warning to the withdrawal of the right to practice medicine (Fioravanti, 2020).

Due to the serious consequences associated with medical errors, official figures were a well-kept secret. However, unofficial surveys indicated alarming numbers: altogether, public and private hospitals in Brazil registered six deaths every hour in 2017 because of so-called "serious never events" (Medicina S / A, 2018).

Paulino's Dilemma

After carefully evaluating the Brazilian healthcare system, Dr. Paulino Souza decided to target hospitals, which are the healthcare institutions where most medical errors occur. He used all his free time to develop his products, which took two years. He invested all his BRL 1.0 million in personal savings and part of his time at the clinic. Therefore, he had to succeed in sales to obtain revenue that could be partly reinvested in the company.

Paulino was convinced that his products would be well accepted. The healthcare market in Brazil was estimated at BRL 240 billion in 2019, with more than 6,000 public and private hospitals as potential customers. However, when he began prospecting in São Paulo, he faced many difficulties. The initial costs and maintenance inhibited purchases of small institutions. At larger private hospitals, many did not accept a visit from Paulino when they heard that the solution was to reduce medical errors. The Medical Director of a vital hospital in São Paulo said in a phone call with Paulino that he does not need a product of this type because *"They were already dealing with it internally, and their rates of never events were meager."*

Some of Paulino's medical colleagues confessed that, since there was no specific legislation, each hospital dealt with the management of never events in its own way. Many hospital managers would probably be reluctant to talk about medical errors.

In addition to the resistance of medical professionals to speak openly about errors at their institutions, Dr. Paulino also had to deal with several objections from other stakeholders. A Managing Director of a large hospital rejected the solution because he could not see any benefits. He also expressed concerns about modifying existing routines, procedures, and systems. At every sales meeting, Dr. Paulino had to hear the difficult question: *"How many hospitals do you already work with? Show me some practical cases of your solutions."* They had some doubts about the capabilities of ClearHands and SureKits and were skeptical about the capacity of the enterprise to produce on a large scale. IT managers questioned the size of Dr. Paulino's enterprise and his lack of experience with IT services. They were very concerned about which brand reference or specialized partner would give scale and stability to Paulino's solution. Other hospitals referred Paulino to the purchasing department. During his presentation, he was surprised by the effort of buyers to make him reduce the price without first understanding the benefits of his products to patients' lives. The price of his products matched any software offered to the hospital market, yet they seemed to care only about the cost of the offering.

After many frustrating attempts, Dr. Paulino Souza listed several unanswered questions: *What are the main barriers against buying my solution? Should I target every healthcare facility or only certain niche hospitals? How can I gain credibility for my products without making a sale? Do I need partners? Should I look into other markets?*

He did not have many resources to improve his solution. All the money he had was invested in research, development, and prototype production. Understanding the causes of his failure was necessary to improve his go-to-market strategy. Since he could not sell, he needed to keep his job as a surgeon, and it was increasingly difficult to reconcile being an entrepreneur and a salaried surgeon.

Paulino strongly believed that someone, somewhere, needed his solutions. He was no longer sure he could sell to hospitals, but something needed to be done before losing his entire investment.

Teaching Notes

1. Positioning

It is recommended that this case be applied to undergraduate courses in Business Administration and *lato sensu* [non-degree] graduate courses in Micro & Small Business Management and Entrepreneurship**.** The pre-firm context has some additional challenges that will enrich the students' knowledge about marketing and sales and enhance the decision-making process. The case may be relevant for exploring specific points of segmentation and sales in executive education programs.

Paulino's dilemma in 2019 represents a common situation in the process of creating and developing a small business. According to Cespedes (2014), ideas around selling may well be new to a larger swath of students, as these concepts are covered less often in a classic administration curriculum. The entrepreneurial context provides an excellent setting for applying sales concepts because the sales process is a rich topic to uncover important insights about customer discovery – a critical issue to any start-up. Moreover, the small-sized business with big ideas and little resources, where founders are responsible for making the sales during the early stages, represents the reality for a large portion of companies in the emerging markets.

2. Data sources and collection

The problem of accessing data from healthcare institutions is a real problem. Unfortunately, any decrease in medical errors in Brazil is compromised by this difficulty in dealing with the issue openly. The risks of judicial implications and the corporativism of the medical class made Dr. Paulino's mission almost impossible. This case is the result of extensive research work in the Brazilian healthcare sector, which merged primary sources – such as interviews with Paulino, doctors, hospital managers, and software and technology professionals – with other secondary sources: scientific papers and newspaper reports.

3. Teaching objectives

After the case study discussion, successful students will be able to: (1) discuss how sales and marketing are integrated in early-stage ventures; (2) examine the importance of the customer discovery process; and (3) formulate ways to become a better seller-entrepreneur. Business school students create new ventures yearly, but many struggle to succeed and end up closing. According to Mordfin (2014), entrepreneurs often think they have something unique to offer the market. However, many of them must understand that selling is the heart of any new venture; an innovative idea can only become a successful company with sales skills. The literature has already shown the commonalities between a personal selling job and being an entrepreneur: both have the autonomy to interact with customers and prospects, and their rewards are linked to personal effort (Fogel et al., 2012). From the entrepreneurial perspective, we could also find research showing that entrepreneurs are best positioned to conduct personal selling activities (De Groot & Wakkee, 2023). Most buyers prefer to be approached by entrepreneurs (Onyemah, Rivera-Pesquera & Ali, 2013) because they are intrinsically more motivated and passionate than employees paid to sell. This is why a few scholars have begun to explore a new construct called *Entrepreneurial Selling*, looking for the nexus between personal selling and entrepreneurship (Deutsch & Wortmann, 2011; Onyemah et al., 2013; Onyemah & Rivera-Pesquera, 2017; Dalecki, 2019; De Groot & Wakkee, 2023). The overall aim of this

learning is to generate knowledge to help Brazilian future entrepreneurs become more successful through entrepreneurial selling orientation.

Teaching plan: timing, questions and case analysis

Introduction	10 min
Recognize the integration of marketing and sales	15 min
Analyze the customer discovery process	25 min
Develop an effective sales plan	30 min
Key learnings	10 min

Introduction

An instructor can open the classroom discussion by repeating a phrase of Dr. Paulino Souza: *"The chances of dying in a plane crash were one in ten million and the chances of a medical error in a hospital were one in ten" and then asking, "What do you think about that?"*

Given the seriousness of the problem, we would expect students to express concern or fear, because it is imperative that when an agreement has been reached for a medical treatment, patients should have the assurance that it will proceed correctly and safely. It is also usual to see students alarmed because of this problem, as pointed out in the report "To Err is Human: Building a Safer Health System" (Institute of Medicine, 2000), this is a serious concern in healthcare that is discussed only behind closed doors, if it is discussed at all. This discussion should quickly engage most students in Dr. Paulino's mission and help with the transition to the next question. The instructor can state that most entrepreneurs start with a passionate idea but fail in the attempt to implement it. An entrepreneur may launch: (1) a new product into an existing market; (2) an existing product into a new market; or (3) a new product into a new market.

Dr. Paulino Souza was trying to launch new, untested products in an entirely new market with very few benchmarks. To increase the students' level of interest, the instructor can ask them to rate from 0 to 10 the level of risk of Paulino's venture. It is expected that some students will be more optimistic and others more pessimistic. However, in fact, Paulino's situation was the riskiest! The doctor invested all his savings, the prototypes have not yet been validated in the market, and the first feedback did not seem very encouraging. After hearing some different opinions, the instructor can make the transition by asking students to analyze the key issues that an entrepreneur needs to resolve in the process of launching a brand-new product into a new market.

Recognize the integration of marketing and sales.

Q1: After two years of research and a million reais in development, why couldn't Paulino sell any prototypes?

Leslie and Holloway (2006) developed a framework of issues related to product development, marketing and sales that need to be resolved during the launch of a brand-new product into a new market. The facilitator can use this refence of issues to organize the students' answers. It is important for them to understand that being an entrepreneur requires more than recognizing good causes and business opportunities. At some point, it will require the ability to attract customers and sell. Because of their central role, product development, marketing and sales are crucial entrepreneurial activities in

new ventures that are not easily separable because in many cases, customer discovery and acquisition are linked and executed simultaneously.

After rating responses, the facilitator should ask the students about who holds the responsibility to manage and perform the underlying activities. This reflection is important to enlighten the students that – different from established companies where product development, marketing research and sales are treated as separate activities –, in new ventures entrepreneurs are often refining their understanding of customers' needs and the features of their product offering during the sales process. Because of that, they face challenges such as selection of appropriate market positioning, time required to educate customers about the offering, and redesign needed to deliver a product that will fully satisfy customers. Clearly, Dr. Paulino failed because he did not engage with prospects as soon as his ideas were conceived. As a doctor, he saw a severe problem and worked hard to develop solutions. For entrepreneurs with no sales experience, the thrill of the opportunities can blind them to important considerations about marketing and sales.

The instructor can move on to the next question of the classroom discussion by saying: "It seems that Dr. Paulino has many issues to manage. Nevertheless, he has one that is urgent: he needs to sell something to someone. It has been two years now! How much time does he have before someone copies his products, or he runs out of money?"

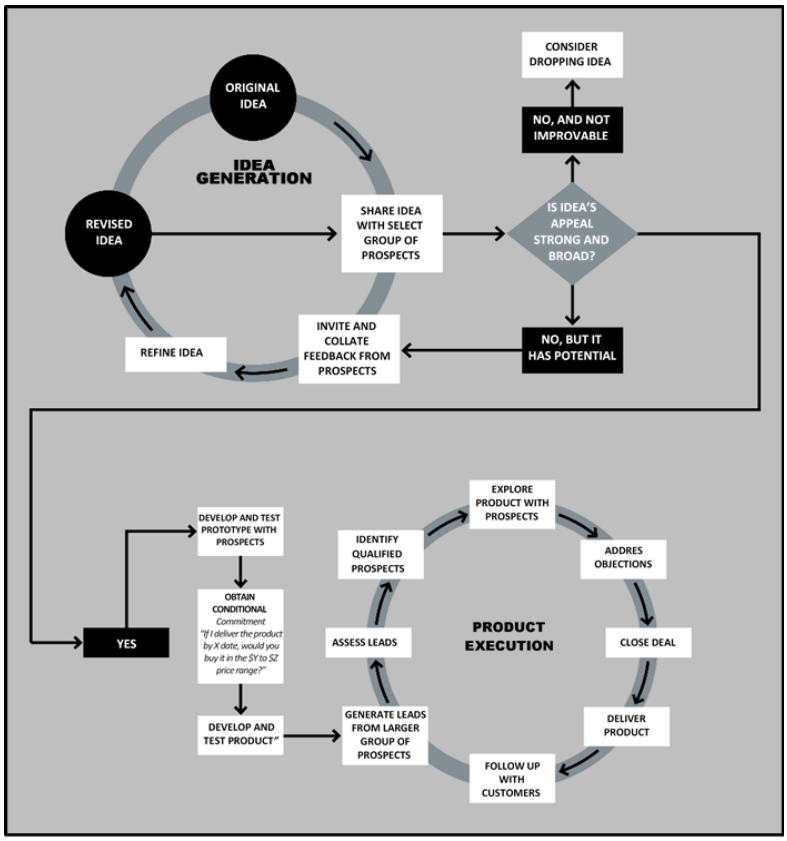
Analyze the customer discovery process.

Q2: What should guide Paulino's selection of potential customers?

According to Leslie and Holloway (2006), companies launching new products into new markets follow a sales learning curve that is analogous to the manufacturing curve. As customers adopt and use the product, the organization modifies both the offering and the processes associated with producing and selling it. Gaining knowledge in the sales process does not happen all at once. It develops gradually: the entrepreneur makes his/her initial assumptions, which are modified iteratively as feedback comes in from early customers. The modified offering reaches even more customers, whose further feedback hones the product, the messaging, and the sales efforts – all accelerating the company's progress along the learning curve.

Because Dr. Paulino's products are new and the market unclear, his learning curve would start out slowly, accelerate for a while, and then flatten out as the product matures. Dr. Paulino does not have any benchmarks to gauge what customers think about his products; the only way to validate the potential demand is to engage with potential customers. It is important for students to understand that the doctor has not completely failed. His first attempts did not generate revenue, but did bring valuable feedback about his offer: (1) Some buyers did not understand the offer, i.e., whether Paulino was selling products or information technology services. Furthermore, they expressed an important concern about their need for network stability. (2) Other prospects expressed their concern about switching costs; the need to modify their routines, procedures, systems, or internal / external relationships. Making such changes to adopt an untested solution from a new company can seem especially risky. (3) An early startup without partners or solid industry background could face sales difficulties because it does not yet have a market reputation. A small company still has to deal with concerns about the ability of the venture to produce on a large scale. (4) Some transactional buyers use negotiation tactics to discover whether entrepreneurs are eager to make a sale. With Paulino's sales track record, it should be expected that many prospects would ask for significant price cuts or promotions to assume all the risks of the solutions.

This challenging process demands a different set of skills related to sales. Onyemah, Pesquera, and Ali (2013) defined Entrepreneurial Selling as a behavior in which entrepreneurs try to identify and exploit opportunities to acquire, develop, and sustain value with potential customers, partners, investors, employees, suppliers, banks, board members, mentors, and distribution channels. As the case highlighted, Entrepreneurial Selling Orientation (ESO) is the logic that Paulino lacks, because ESO is the tendency to engage in Entrepreneurial Selling. A very illustrative way of demonstrating this process is presented by Onyemah, Pesquera and Ali (2013).



Unlike established companies at which the salesperson has a fully developed product and a targeted market, in an entrepreneurial venture, founders should engage with prospects as soon as possible and use the information gleaned in the sales process to design or redesign the offer. The goal of these sales meetings is to obtain market intelligence not only about the product design but also about promotion, distribution, and pricing strategies. After a round of these meetings, the entrepreneur should ask if the idea has enough appeal. The answer to that question should determine whether the entrepreneur should jettison the idea, return to design, proceed to the factory, obtain conditional commitments from prospects, generate more leads, or engage in other traditional sales activities.

However, who should guide Dr. Paulino's product execution? He did not segment his market at all. Regardless of how large a market may seem to an entrepreneur, a venture can extract more or less value from different kinds of customers. Not every potential customer is a good customer, so a selection will be crucial to avoid fragmented selling efforts. Ineffective management of opportunities can lead to loss of money or cause time investments on the wrong kind of customer.

At the end of the analysis, the students should recognize that Dr. Paulino's effort had some value, but now he must evolve to target customers to whom the idea will appeal enough to make them buy the solutions before they were proven on the market. He should develop an Entrepreneurial Selling Orientation to succeed. The instructor can lead the classroom discussion to the final question by

asking: “We can see that Dr. Paulino has some significant information about his solutions. He needs to review his original idea and adapt his sales tactics to obtain conditional commitments. We have an important cause that can affect people’s lives. What do you suggest Dr. Paulino should do to enhance sales quickly?”

Develop an effective sales plan.

Q3: What prompt actions should Dr. Paulino take to enhance sales?

After considering whether Dr. Paulino was targeting the right set of customers, the students should suggest courses of action to enhance sales in a short period. The classroom discussion should lead to some creative suggestions about sales tactics, in an entrepreneurial context with resource restraints. It is important to understand that, like many other entrepreneurs, despite the noble cause and the great idea, if Dr. Paulino fails, he will not be able to sustain his venture for much longer.

Usually, the students’ plans can be grouped into better targeting the private hospitals segment, acting in other niches (with or without partnerships), or seeking investors.

Segmentation

Dr. Paulino was at the initiation phase – when the product was ready to test, but few customers were willing to consider buying. To overcome this barrier, Paulino will have to choose a segment more likely to take the risks of the high level of innovation of his products. Public hospitals should be excluded, due to the high level of bureaucratization and complexity of the supplier contracting system used by Brazil’s National Health System (SUS), which would make it impossible for Dr. Paulino to implement short-term sales actions. Without an investor, Dr. Paulino should find innovators’ and early adopters’ buyers within the private sector.

Innovative Private Hospitals and Early Adopters

Dr. Paulino should find hospitals that accept the risk to implement an untested solution and establish a partnership with a small company with no industry reputation. A never event is a mistake that imposes severe consequences for the patient, the medical team, and the hospital. Accordingly, most hospitals will not feel comfortable sharing this kind of information. In order to find innovative hospitals and early adopters, Dr. Paulino will also have to adjust his products and his sales approach. The decision makers will be very reluctant to establish a partnership with a medical entrepreneur who cannot provide his system with stability and scale up capacity. For this reason, Dr. Paulino will need to focus on the tangible benefits of his products, such as increasing productivity and reducing costs for the hospital, and offer considerable discounts on prices or incentives such as “test free and pay after results.” Innovators want to find a partner willing to do whatever it takes to improve their service level. If hospitals are expressing concerns about exposing their data on medical errors, Dr. Paulino could adapt his software to provide greater protection and security, with access authorization protocols, encryption, digital certificates, and even the training of the hospital’s IT staff.

Other Niches

Dr. Paulino could also try to develop a spot market in a segment other than hospitals to test his solutions and earn some cash. Other institutions such as outpatient surgical centers, maternity hospitals, and clinics need to comply with hand hygiene requirements, have less complex information systems, and a smaller scale. ClearHands and SureKits could solve immediate needs, and the success of these cases would offer more credibility for Paulino to approach private hospitals. It would also be

possible to begin market penetration in other industries that share the needs of healthcare companies but do not have the problem of medical errors. The food industry, for example, must follow strict standards of hand hygiene because the main cause of food-borne diseases (FBD) is contamination due to lack of proper hygiene by the handlers.

Partnerships

Suggestions for establishing partnerships are also very common. Dr. Paulino could work together with companies that produce medical materials (3M, GE) or automation solution suppliers (NEC, Johnson & Johnson, Bionexo), which already work with private hospitals and can reduce the exchange costs and the doubts regarding credibility and scale, as well as facilitate the sale of other solutions. It is important to make students reflect on the feasibility of maintaining patents in these situations. Acting with partners of this size has its costs. If Dr. Paulino chose to follow this path, he would probably lose total control of his patents.

Investors

Finally, some students may point out the need for funding for Paulino's operation. At start-ups, being able to attract investment is almost as important as selling to customers. If students consider that the acceptance of Paulino's products will be very slow, they will have to present some alternative to deal with the investment issue. It is important to make them reflect on what Paulino's leverage would be. According to Malhorta (2013), entrepreneurs should beware of entrepreneurial overconfidence. When they are raising money, they must consider the possibility that progress will be slower than expected. One alternative is to sell more equity up front to avoid negotiating for more cash later, when the entrepreneur has fewer options. If this alternative is not possible and the entrepreneur has to negotiate investment, it is important to avoid the allure of valuation. Negotiation is about all elements of interest, not just the investment level. Entrepreneurs should not forget all the non-financial reasons that motivate them to initiate an entrepreneurial venture to enhance their leverage.

Key Learnings

The instructor can conclude the case discussion with a summary of what Paulino's case demonstrates:

- Different from established companies, in early-stage entrepreneurial ventures, innovation, marketing, and sales are fundamental functions that work together in a customer discovery process.
- In the customer discovery process, it is important to engage with prospects as soon as the idea is conceived. The entrepreneur should use Entrepreneurial Selling behavior to check whether the idea has strong and broad-based appeal to generate conditional commitments and transit from the idea generation phase to the product execution phase, just as the Onyemah, Pesquera and Ali (2013) model shows.
- Entrepreneurial Selling is a crucial way for opportunity creation, acquiring new network contacts, and iterative learning from each sales call. The entrepreneur makes a shortlist of potential customers and then directly approaches these leads. In preliminary sales conversations, new products and services will be discussed and further shaped with potential customers' commitments.
- Although most entrepreneurs do not know how to sell, they must learn how to become better at it. If the entrepreneurs fail to do that as soon as the lightbulb moment happens, they can frustrate their mission and lose important investment.

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