

3.14 Case Study of Peru¹

3.14.1 Profile of a Woman Entrepreneur



Mrs. Nory Rodriguez Vergara CEO of BEAT in Peru

Nory del Rocío Rodríguez Vergara was born in the city of Lima, on July 15, 1979; She completed her primary and secondary studies at the Santa María School, between 1986 and 1996. She is fluent in English, permanently employed in her work, and enjoys reading.

In 1997, she entered the University of Lima (UL), a Peruvian university with more than half a century of foundation, to study the professional career of Systems Engineering, having obtained the Bachelor's Degree with the distinction Summa Cum Laude, in the year 2002. Later between the years 2011 - 2012 she studied a Corporate MBA at ESADE Business School, in Barcelona, Spain.

Her work history began working as an *Information Security Analyst* in the *Banco de Credito del Peru* (2001-2007); she was in charge of the information security policy development, risk assessments, compliance, control design and effectiveness; attack and penetration testing including vulnerability/risk validation, and secure application development and utilization of network and application security assessment tools and methodologies to manage and address issues with different technologies: UNIX, Windows Servers, databases (Oracle, SQL, DB2, etc.), mainframe, firewalls, routers, VPNs.

Nory also worked as an *Advisory Services Manager* in *Price Waterhouse Coopers* (2007-2011), performing the following functions:

¹ This case study was conducted by Maria del Carmen Ferrua Allen, Professor, Universidad Femenina Del Sagrado Corazón (UNIFÉ), Peru.

- Identify and address client needs (developing and sustaining client relationships using networking to identify and sell potential new service opportunities; communicating value propositions; preparing and presenting complex written and verbal materials; and defining resource requirements, project workflow, budgets, billing and collection).
- Leading planning and execution of projects in the following areas: Information Security, Business Continuity, Risk Management, IT Management, IT Audit and Compliance with financial regulations and international standards (ISO 27001, ISO 27002, BS 25999).
- Planning and project management skills, risk analysis, quality assurance and vendor management.
- Financial industry expertise in a broad range of risk and compliance issues.

Nory's work experience and professional performance includes the execution of projects for companies located in the financial sector (Interbank, Scotiabank, Banco Ripley, Banco de Comercio, Peruvian Payment and Stock Exchange Company of Lima), and in other sectors of the national economy (Duke Energy, Milpo Mining Company, Food Technology, etc.) where it designs products and services, customer service, implementation of technological solutions with international service providers, project management, operational risk, information security, business continuity, systems audit and regulatory compliance.

In the following years, Nory was in charge of Operations Manager Mobile Financial Services - A MasterCard and Telefonica International Joint Venture (2011-2013); performing the following functions:

- Manage and execute planning and implementation of local IT project portfolio.
- Interface with business owners to understand in-detail business/functional product and service design needs and successfully translate them into technical requirements.
- Guarantee efficient technological liaison with technology services providers, partner bank, mobile network operator and agent network.
- Direct and manage operational and technical resources to enable country activities within budget and project schedule.
- Develop policies, processes and procedures for country operational activity.
- Supervise and monitor Front and Back office processes to ensure the highest levels of customer efficiency and effectiveness.
- Develop and monitor service level agreements (SLA) provided by IT vendors to ensure all quality standards are met.
- Manage operational risk, information security and business continuity requirements to ensure operation availability.

- Design and implement operational model and incident management procedures with all participants.
- Develop and maintain all operational and customer service metrics as well as other relevant KPI's.

She defines herself as a *"Specialist in the management of information technologies, risks and means of payment, with more than fourteen years of professional experience"*.

The Start of a New Challenge

She never imagined that as a result of her varied interactions and work relationships with different people, day by day, she was weaving a network of interpersonal relationships, which would lead her to receive a work proposal, unusual to her usual work.

It was a foreign company (TAXIBEAT) that was looking for a country manager to open operations in Peru, in the urban passenger transport sector using information and communication technologies (ICT). That was how she accepted the challenge and embarked on a new adventure, which, as she points out, *"Is passionate"*.

The central office of TAXIBEAT, located in Athens, Greece, commissioned the CEO of Brazil the responsibility of the search of applicants to open a seat in Peru. After passing by a strict process of evaluation and interviews with Executive Directors, representatives of the company in Brazil, England and Greece, *"I joined up as the Country Manager in Peru, in October 2013"*. Nory had to travel Greece for a week in order to know the internal functioning, values and spirit of the company.

Nory was the only representative and employee of the company in Peru, so she was responsible for developing the constitution project, setting up the company, searching a lawyers' staff, analyzing the opposition companies and the values elements (benefits for the user, prices, different from the opposition), solving the risky points for a startup (to break off paradigms in a corporate world, to include the taximeter in the apps, maps design), hiring talent, user acquisition brand building, finding a physical space to accommodate the installations and the sales force, formed by five hundred drivers for a city as Lima and for the people that have to affiliate, obtaining business credit and others, adapting user experience and product to market needs, as well as responsible for managing operations, business development and growth. She recalled that, by the end of 2013, the company's work team consisted of three people.

In her own words, she said that it was necessary *"To get your hands dirty, you had to fulfill different roles"*. For example, an arduous task for her was to find a spacious place where not only the offices

of the company would work, but also, the vehicles could be parked when the driver users came to carry out activities or activities of various kinds. Thus, the company occupied two offices, each of 100 square meters, with a parking lot of 500 square meters, which to date still occupies, in the area called El Trigal, in the district of Santiago de Surco.

She is fully involved in all the processes that as CEO she must perform, but she emphasizes those activities that guide human and company development; among them the following:

- Frequent contact with drivers and passengers, traveling in TAXIBEAT vehicles and receiving the opinions of the users of the services of transfer through the city, through personal interviews, as well as social networks (FACEBOOK), in such a way that feedback is produced, taking into account details that require quality attention, that the company makes in its promotional marketing.
- She reviews the policy of the company and its strategies that achieve the objectives set.
- She studies the changes that occur in the service market by application to provide better job opportunities and benefits of all kinds to the groups involved in this business.
- She controls that the client support area is vigilant and attentive to the needs of the clients twenty (24) hours a day, to provide the immediate solution.

Throughout these almost four years of strong and sustained work, Nory feels very proud of what she has achieved so far, a company that has a *"Wonderful work team"* that has allowed to position TAXIBEAT among the main companies by applications. in the Peruvian market: in addition, it has contributed to *"Professionalize drivers, who have improved their working conditions, and therefore their income, which have an impact on better living conditions for them and their families"*.

Nory Rodríguez became the first woman in taking the Country Manager of TAXIBEAT, post in Lima (Peru) in contrast to other posts in Latin America whereby men's presence was predominant.

3.14.2 Profile of a Company

Origin and Development of the Company: TAXIBEAT

The application for smartphones with iOS and Android operating systems has become popular in the Peruvian context with the appearance of different companies such as Uber, a company of American origin that entered the local market with strength for its modest prices, in the opinion of the public or user; they also compete *Easy Taxi, Cabify, Taxi Satelital*, among others.



On April 9, 2014, a new company, TAXIBEAT, was incorporated into this market, whose website is <https://www.taxibeat.com.pe>, in order to meet the needs of users moving through Greater Lima and Callao, with the aim of expanding to other areas of the country.

TAXIBEAT, as mentioned above, of Greek origin, was founded by Mr. Nick Drandakis, Nick Damailakis and Kostis Sakkas, had been operating in European cities, for example, in Athens (Greece), Paris (France) and Istanbul (Turkey), as well as in Latin America, in plazas of Ciudad de Mexico and Sao Paulo (Brazil), respectively, which currently – due to the competence existing in the App Market in passenger transportation – has stopped operating, except for Athens.

There were great expectations; all the steps had been taken to offer a private service of transport through a technological platform in a fast, secure and effective way were carried out. Nory pointed out that

“We operate an application for smartphones which connects passengers and drivers as part of this new era of sharing economy services”.

She was interested in entering the Peruvian Market to provide customers with solutions for traffic issues and insecurity while taking a taxi, within a city like Lima, with almost five million people, who have access to ICT in their homes.

On the first day of operation of TAXIBEAT, it was reported that only fifty-six people used the service, but that did not discourage them; on the contrary, that led them to continue on the road because the new company was betting that *“passengers can travel with the best taxi drivers in Lima, to ensure comfort and safety during their journey.”* TAXIBEAT, using words from Nory, offers passengers a new experience in the search, geographic location and digital call to a taxi service, which is selected, based on the rating that drivers receive from other passengers; guarantees quality care by providing free services (television service in the car, wheelchair transport, etc.) as well as other additional facilities that can be offered (air conditioning, languages spoken by the driver, among others), and security in the transfer of the user to his destination, visualizing the route of the taxi from beginning to end.

During the process of setting up the company, Nory says that she found several barriers that had to be broken down, the most significant ones being for her purpose: *"the incipient use of the technology of most drivers and the lack of equipment"*, that is to say, the smart phone or smartphone. Therefore, the need to *"look for mobile telephony operators that could offer mobile plans and equipment to the driving users and develop a training plan in the use of this technology"*, to start operating in the market of taxi applications.

Other important and necessary aspects to take into account were the recruitment and affiliation of the driver users. It was necessary to find out the selection filters of the existing human resources in the market. Nory says that for this: *"today we have the services of the ADECCO company"*; this company is considered a leader in Human Resources (<https://www.adecco.com.pe>) that is responsible for the selection of the best professionals. In case of TAXIBEAT, the best professionals selected are the driver users, who would provide the safety and quality of service that TAXIBEAT was committed to offering to the passengers. Over time, Nory points out that:

"The driver and passenger users themselves mark safety filters for the selection of drivers" in the market of this mobile platform, and thus the "recruitment of them will be done remotely which allows us to find the best for the available work places".

Of the total number of applicants that the company receives each month, Nory points out that: *"35% of them pass the filters imposed and later receive training on the use of the application"*. In the case of the number of client users to this application, *"their growth is at 30% per month"*. At the date of the interview, it was estimated that more than fifteen thousand driver users were working with the TAXIBEAT application, and that it had been transferred to more than half a million passengers through the city of Lima and Callao.

The company has developed a document called *General Terms and Conditions for the Use of the BEAT Application by Users Drivers and Passenger Users*, which both must know, accept and commit to respect and comply with to ensure efficiency and quality of service and customer satisfaction. It specifies that for the payment by taxi service there are two modalities: use of cash and use of debit card and / or credit card, which must be VISA / MASTERCARD but have been issued in Peru.

Birth of the New Company: BEAT

In the first half of February 2017, the founder and CEO of TAXIBEAT announced the total acquisition of TAXIBEAT by MYTAXI, an application of European origin that also provides taxi services and is a subsidiary of DAIMLER MOBILITY SERVICES. Nory states that:

“TAXIBEAT was owned by a German consortium, dedicated to the same business. Nowadays, it is known as BEAT in Peru. It will continue its operations normally. The application and its functions, both for driver users and for passengers, will not suffer any change”.

She says that:

“BEAT'S VISION is to offer an affordable and efficient way for people to move in their cities”.



On July 5, 2017, the company's new name was announced with the following motto: As of today, we are BEAT! New name, the same great experience!

On the other hand, the headquarters and administrative offices in Peru move to a new location, which is located in Av. Paseo de la República 5895, Interior 604, Urbanización San Antonio (LEURO BUILDING), Miraflores – Lima 12, maintaining the old offices as the center of operations for the driving users.

In the new infrastructure open co-working spaces have been created where professionals meet and relate with others, as Nory says: *"the idea is to have them close."* It is an infrastructure that has work rooms, where the projects are developed or any theme of working life, as well as meeting rooms to receive customers. What is observed in this environment is that the decoration, the layout of the office furniture is different from the traditional concept;

“It is a multifunctional space that allows you to develop different activities at the same time”.

According to Nory,

"That environment is conducive to good management, that is quality, and mainly invites employees to develop innovation projects and continuous improvement in the management of the company".

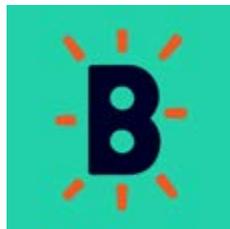
BEAT, today, is a taxi service, which transports passengers not only in the cities of Lima and Callao, but also in the city of Arequipa, located in the south of Peru; its entry into the transport services market by App was carried out in 2016, using the same procedure and maintaining the same quality standards.

Currently, BEAT counts with almost 100 people between Lima and Arequipa. Nory states that: *“Since I started the company in Peru, the sustained growth has maintained above 30%.* This is possible because they have a very active website, since not only the application for the smartphone is downloaded but also information is provided to the users, all kinds of amenities are offered through photos and videos about the community.

On the other hand, BEAT uses social networks such as Facebook, Twitter, LinkedIn, etc., in addition to its website as an immediate channel of communication with the followers of the company or its products, as well as an electronic means of information and marketing of new products, offers and promotions offered to its users.

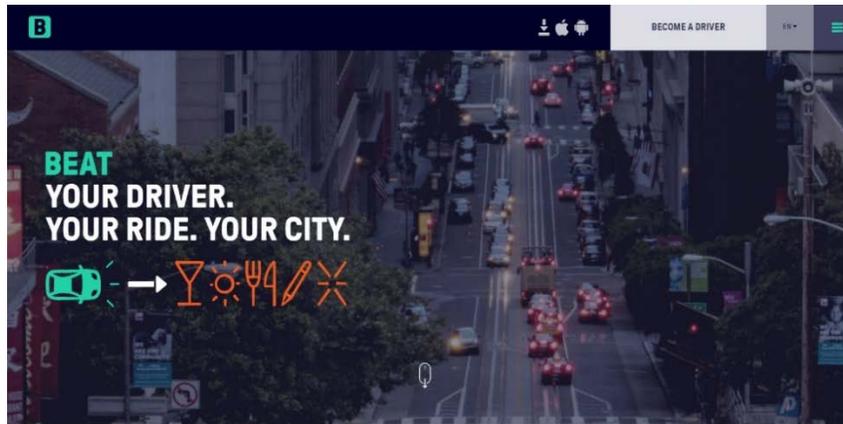
In them is the story of stories of the city, the invitation to tour the city, go to their favorite places and the most interesting places of it, among others.

So, on August 8, 2017, it launched not only an update of the application, but the change of name brought new colors, in a more, friendly interface, and a new visual language that is based on the codes and symbols of the city, such as say their creators.



BEAT replaced the previous image by a new design with colors that give the sensation of light and freshness to become more attractive to the eyes of its users.

The marketing campaigns carried out by BEAT emphasize the safe service provided to the passenger, because in advance the driver and his vehicle can be identified so that he can communicate it to others; It offers a dynamic rate because it aims to attract more driving users to areas of high demand and traffic, and no additional commission is charged on the final rate; and finally, it promises the passenger user to arrive at his/her destination quickly, with the push of a button, since he/she will find available drivers, twenty-four hours a day, seven days a week.



After four years of functioning nearly, the company has achieved a position in the Peruvian market. Recognized by the users of the taxi service by applications, BEAT occupies the second place of preferences, after the company UBER, because it complies with the offer, in the opinion of the passengers.

Nory expects BEAT to continue on the path of growth and preferences, thanks to the select team of professionals in various disciplines, with whom it counts in the areas of engineering, administration, accounting, marketing, among others, including the driving users themselves to reach their goals, in her words: *“Attract and Keep Top Talent, Sustainable supply growth, Amazing product experience”*.

3.14.3 Findings

3.14.3.1 Success Factors

The success achieved so far by BEAT is due to factors that are related to the emergence of digital and innovative companies in our environment, and the needs of having an urban passenger transport that allows users to travel to different points in large cities such as Lima, quickly, with affordable prices to the consumer, and safe; to have a team of highly competitive, creative and innovative professionals.

Growth of the Digital Company in Peru

In Peru, an interesting process – a heavy use of technology – has been initiated by young people, and it has created an opportunity to start a business, since university initiatives have emerged through incubators of new companies, and other technological communities that are promoting "Startups".

This ecosystem that promotes innovation grows in Peru at the initiative of the people themselves who know that the mobile market and the penetration of the internet grow every year. In addition, current government programs and innovation contests that are promoted are driving the creation and growth of these businesses.

The developers of technological startups have focused and shown interest, for example, in the passenger transport sector due to the chaos caused by traffic in the city of Lima and the loss of hours every day, as users move to their work centers, studies, among others. This is the reason that motivated the emergence of taxi service companies through smartphone applications, as Nory points out: *"The main success factor is the growth in digital startups, especially in the business that I am on now which is transportation. Technology has open an important door in our country to mix these two areas and improve it"*. However, over time, it has become more important to build value propositions and unique business models, because this will allow competing with other companies of this type, national and foreign, that exist in the local market, and achieve the expected success, and that's what Nory knew: *"Of course, we have a lot of things to work yet, as a market and with the government (as an aid)"*.

Growth of the Market and Use of Smartphones in Peru

In 2014, when BEAT entered the Peruvian market, the world of smartphones was just beginning to develop. It was estimated that around one million was imported that year, but, to date, this figure has tripled according to Peru Retail (July 2017); smartphone users reached 12.7 million, which represents a penetration of 33.0 percentage in the local market. This is due to the increase in sales of these devices and the incursion of new mobile operators in the country that allowed a varied sale. (See <https://www.peru-retail.com/usuarios-smartphones-peru/>). This is strength for the business undertaken by Nory and she has understood this:

"It was a moment where smartphones were being selling a lot and it keeps growing, so it is turning to a positive way of growing for us too".

However, such favourable market situation alone was not the only success factor. The company made innovations in many aspects, for example, determine what other categories of application of mobile technology can be offered (new service offers and differentiated benefits) to the passengers; seek to interact with them, know them and support them in an unexpected situation; make differences with respect to their competitors in this business; improve operational and marketing strategies aimed at their target audience.

Increase in the Demand and Commitment of the Work Team

The mobile applications for taxi services were changing the passenger transport market that operated in cities of Peru. In Lima, this modality constituted an alternative to the informality of the taxi service, since it was estimated that around 180,000 taxis circulated between Lima and Callao every day.

In the local environment, seven or eight companies by mobile applications are currently quite well known, unlike four years ago, when BEAT started its operations, and it was only recently that people got to know about this service modality. Nory states:

“Initially, when we launched we only have two or three players at that moment, competitors, so we learned from the market, where they were, what they were offering to people, and we learned how important it was to provide transparent fares, safety to ride, and the people needed a lot of convenience through technology”.

In a mega-city like Lima, and in cities where there is more than a million people, and that are growing, the market potential of this service is very high in Peru. The demand for a faster, safer and more efficient service will grow on the one hand, and the offer will do so on the other hand because a mobile App will allow the driver to access passengers, who are looking for a means of transport, near their location, simply and quickly. This is what has happened to BEAT. Nory says:

“Now we grew up to 30,000 drivers active per month which is an amazing milestone but we need to keep growing because as much as you get to be known by the community, more use, more demand, you need more people to take them. We need to keep growing in every aspect, demand, supply, and even into a team”

Team Work

The success of taxi service companies based on mobile applications is in the generation of value to the brand. Nory knows that the companies will grow as long as they have a good team of creative professionals who are committed to the BEAT Mission and Vision and have expertise in business, design, marketing and business, advertising, and communication. Nory was proud of her team when saying:

“I think by now one of the main success factors is obviously the amazing team that we have. If not, we can't execute the way that we are doing.” With good team work, it will be possible to diversify this market and occupy the first place, in the short term, of the top ten of this type of companies, for a long time.

“Since it is a digital business, it is constantly adapting and choosing the best team to be able to keep up with changes”.

3.14.3.2 Challenges

Since the beginning of BEAT, Nory has faced a series of challenges from the fact that she is a woman in charge of a mobile-based taxi service company, a business which is usually male dominated work and she was not well prepared for. The following are some of the challenges.

Permanent Adaptation to Technological Change

Today, people live in a digital, global, hyper connected world, which is constantly and rapidly changing. The most radical thing could be the emergence of the digital clients who, on a permanent basis and, thanks to access to the internet and mobile technology, can generate new habits of access and consumption of information, according to their needs, tastes, preferences, ways to communicate, transport, rest, etc.

Service companies such as BEAT must constantly face technological adaptation; modernization and improvements must be made to its business model, technology itself, internal and external processes. It implies the need to train employees to become resilient, so that they can withstand the pressure of change; to create an open, innovative organization culture which appropriately reacts to technological changes and puts as a center of the business their clients for whom we create unique and exceptional experiences.

BEAT must always keep this digital strategy in mind in order to find new competitive advantages and enhance them: *“It is a need that everybody has the same mind set because priority changes every day and also because this is a very competitive market, in terms of competitors. So, everybody has to avoid frustration and to be flexible and adapted to change every time”.* Only then will it enter new places and position itself better than its competitors in the Peruvian market.

Informality and Lack of Market Regulation

The Peruvian urban transport market is characterized by its informality and atomization. It is estimated that only in Lima there are more than 250 thousand taxis, but individuals who are not authorized as taxi drivers by the Metropolitan Municipality perform the role of taxi driver using their vehicles.

In this market, the vehicles that provide a service by application are considered by some as an irregular service because private individuals who are not registered in the Metropolitan Municipality of Lima and have not contracted the *Compulsory Insurance against Traffic Accidents*

(SOAT), are added to this market for taxi; others consider them as unfair, illegitimate competitors because they cannot be easily audited and their vehicles are not identified as taxis, and thus there is a legal vacuum.

"The informality of such taxi drivers is not a recent problem that emerged with the mobile applications, but it is something that already existed ", says the CEO of BEAT.

Faced with this situation, the Congress of the Republic of Peru has presented a bill N° 1505/2016-CR that seeks to regulate this service through the use of smartphones, whose purpose is to ensure the legality of the service provided by these companies like BEAT. The text of the law also seeks to promote the improvement and quality of the service and identify the responsibilities between the operator of the platform and the users of the service. In the short term it is certain that this bill will be debated to consider this service as a "private transport service" that is intended to be controlled by the Ministry of Transport and Communications. People can see what happens in the coming months, what these answers companies like BEAT will give.

Taxi Services by Mobile Applications Are Not Transport Companies

The digital applications that are used in the passenger transport service are a means to interconnect a passenger user with a driver user, and there is no other type of relationship in businesses such as UBER, CABIFY, BEAT, etc.

These business companies have agreements with private or private drivers who own their vehicles, but who are not identified as taxis; in practice, it is a passenger transport service that in the near future will have to be regulated because every time users (about 60%) in Lima prefer them, and it is increasing, despite not having municipal authorization. In the opinion of the passengers, the transport companies provide a service that guarantees their safety by knowing who is driving, the license plate number, the route to follow, which are data-provided by this type of company.

Consequently, UBER, CABIFY, BEAT, EASY and others are not recognized by legislation as transport companies: they do not have a fleet of taxis or private cars; the drivers are not workers of the company; they do not appear in the employee list; they pay a commission for trips to companies that fluctuates between 12.0 percentage and 25.0 percentage for the interconnection service that they provide the driver to move the passenger.

These technological platforms, in short, have no responsibilities or obligations to drivers and passengers, a situation that with the passage of time will be subject to attention by Peruvian legislation, and possibly other countries in the world where they are operating.

The Safety of Users Is Not Guaranteed

In the past few months, complaints of assault and robbery on board vehicles that provide a mobile app-based service have been known by the Peruvian press, and this has caught the attention of authorities at all levels of government.

Companies by mobile application ensure that drivers are previously investigated to ensure they do not have a criminal record; the police, criminal and judicial records are reviewed and they are also trained in the code of service provided and preventive management; however, security is not guaranteed at a hundred percentage for the passenger, despite the information that exists about the drivers, such as his face and his name given by the companies, in addition.

Also the drivers are victims of robberies and aggressions. The company is not obliged to intervene in these cases because as mentioned above, they are not part of the screen because they are not their workers. Hence the need for the systems of these companies allow the driver to evaluate and qualify the passenger for their behaviours and attitudes, and may be sanctioned in some way, when the case merits.

3.14.3.3 Policy Recommendations

Women in Peru today have many more opportunities for the creation and development of their companies than in the past; they have demonstrated their entrepreneurial spirit and their contribution to the economic growth and well-being of their family and society respectively.

But, also today, despite access to the internet, mobile technology, and the digital ecosystem that unites the talent, opportunities and resources to support new entrepreneurs of this 21st century, women are still reluctant to engage in business partly for lack of academic training appropriate support, and contacts with the industry and investors.

Promoting the Teaching of Academic Disciplines of Science, Technology, Engineering and Mathematics (STEM) Among Children and Young People

The Ministry of Education and civil society should aim at the development and promotion of programs that improve the teaching of mathematics, science and technology from schools, at all levels of basic education, to universities.

On the one hand, it is necessary to review the curriculum of primary and secondary schools to evaluate and reinforce the contents of the basic and applied sciences that are taught and confirm the effectiveness of the methods and materials used and see other alternatives.

On the other hand, it is necessary to ask crucial questions, such as ‘who should teach?’ ‘how should teachers be prepared?’ ‘Should opportunities be given to professionals in STEM disciplines to be incorporated into the teaching of these disciplines in educational institutions of primary and secondary level because they have the skills and capabilities?’ The important thing is to generate a collective conscience about improving educational opportunities and satisfying the Right to Education of children.

STEM careers are the careers of the future. They have high demand in the labor market, but few are the young women who agree to study them, hence there is a need for the State to develop a Scholarship Program in the Training of Professionals in Careers of Engineering and Technology, and for universities and institutes of higher education to create Mentoring Programs to guide young women in the study and research.

Promotion and Development of Business Incubators in the Country

Business incubators are strongly related to entrepreneurship and innovation, and it is from there that business initiatives of a digital nature emerged. With the development of the internet and the contribution of new technologies, incubators have become the center for the development of new products, technology solutions, among others.

In Peru, the State created "Start Up Peru", under the leadership of the Ministry of Production and Vice Minister of MSE and Industry with the aim of promoting the emergence and consolidation of new Peruvian companies that offer products and services based on innovation and technology, so that they can enter the local and international market and create quality jobs.

This proposal has generated more and more young women and men to present their projects of entrepreneurship, incubators and companies at an early age, to competitions, to achieve financing, and to develop collaborative networks with different actors of the Startup community of the country and abroad.

However, it is required that this initiative be extended and strengthened throughout the national territory, because the Peruvian, whether male or female, is an innovative entrepreneur, but it is difficult to turn that innovation into a competitive, profitable and sustainable business in time. It is not fully known what the Peruvian entrepreneurial ecosystem is like.

Access of Women Entrepreneurs to Digital Education and Business Training

In Peru, female entrepreneurship is recognized because it is creative, ingenious and persevering but also suffers from the lack of business knowledge, advice, financing and use of ICT in their businesses.

There is a digital divide for reasons of gender, basically for cultural reasons, because it is thought that boys and adolescents can easily access the learning of technologies, and not the girl, the adolescent or adult woman. There is also a digital divide between the rural women and the urban women. Former requires more urgent training programs and technical support to achieve their business opportunity.

Therefore, inequalities do not only occur in access to equipment and possibilities of accessing the Internet, but there are other inequalities such as in the production of information and content, in technological skills (what one knows how to do), in the intensity (how much is done) and in the type of use (what is done).

3.14.3.4 Advice for Women Entrepreneurs

The following is advice that Nory gave to many women who have dabbled in the business world:

Where Next!

As the goals and objectives of the company are reached, women startups must continue to consider more challenges and new objectives and goals constantly, while seeking to achieve the success of the company and pursuing its dream of making it great m. *“To keep on pursuing the goal towards success and once you get there, again as we say in BEAT, ask yourself “Where next?”.*

See Failure as an Opportunity

The society in which we live teaches us to value success and to feel uncomfortable and ashamed when failure occurs. For that reason people are afraid to take risks and only limit themselves to remain in their activities and jobs. But the truth is that failure leads people to continue learning and progressing to savor success later:

“Every day we see news of how we are succeeding in areas that “were not for us”. Of course, it is not going to be easy but, the point is: “to keep trying and see a failure as an opportunity to show strength and keep learning”.

There Are No Limits, Only Opportunities

People have two paths to follow: accept the limits and stop doing what they want to do because they are prevented, or look beyond them and see the opportunities. Business women are breaking the gender stereotypes associated with the production sectors and economic branches that were dominated by men. Nory advised other women to keep in mind that there is nothing impossible, and that by preparing and working hard they can take advantage of opportunities as soon as they present themselves to make a difference.

“As women, we are proving day by day that there are no limits to what we can do and where we can go. Every day, more women are proving that no profession is unique to a gender and that not only do we have the same abilities but we deserve the same opportunities”.

What You Do, Do It with Passion

Entrepreneurship is nothing more than doing what you love in life, to make it evolve to get the most out of it, not only from the economic point of view but from the perspective of personal self-realization; it is what most interests and full of happiness every achievement that is achieved. Being an entrepreneur implies being creative, innovative, and successful and having leadership.

“No matter what the challenge is, you just take it. If you really make it with passion you are going to make the best of it. And inspiring people with what you do is the best way to feel real, makes it satisfaction for yourself”.

3.14.3.5 Summary and Discussion

This investigation has allowed knowing more closely the information and communication technologies development state, as well as, the feminine entrepreneurship in Peru.

To date, Peru counts with a law project that creates the Vice Ministry of ICT and will be attached to the Ministry of Transport and Communications (MTC); was recently approved by the Council of Ministers, and will be delivered to the Congress of the Republic / Committee on Transport and Communications for debate and approval, so that in the shortest time it can be implemented an.

All Peruvian society actors (private sector, academy, civil society) are aware of the need for a body such as the Vice Ministry in question to promote the ICT development in Peru. Also there is a need for the policies in the information society field which can facilitate the special data functions integration, information security, digital literacy, e-government, e-commerce, and the emergence, development and operation of ICT industries, which will contribute to the national development, social inclusion, democratization, transparency and modernity.

The current Vice Ministry of Communications that will be replaced by the Vice Ministry of ICT has a goal for the Peruvian Independence Bicentennial, year 2021, to expand the internet penetration in the country provinces and districts, and have high speed internet connection; for this, people have been working on the implementation of the National Dorsal Fiber Optic Network (NDFON) and regional networks for the Coast and Highland, while for the Jungle department capitals there will be other solutions (satellite internet, microwave network) because they are difficult access areas, in charge of the Investment Fund in Telecommunications (IFT). This project

is vital for the Peruvian digital integration.

The ICT use, in Peru, is below the Latin American region level. Peru is the country with the least internet users, being surpassed by countries such as Uruguay, (leading ICT development country in the region), Colombia, Chile and Brazil where there are digital government institutions.

According to journalistic reports, the Peruvian State, with the development of the NDFON, is determined to support the vital sectors for the population, such as health, education and security. Likewise, it must promote digital use in the population to generate digital citizenship, demand for digital services that improve the citizen life quality, the companies' productivity and the government service efficiency.

According to the National Institute of Statistics and Informatics (2017), the penetration of ICT in the country's households was 93.0 percentage; 19.7 percentage accessed the internet at home, and mobile phone; 28.2 percentage of the population of six and more years of age, accessed the internet through the mobile phone; and 13.5 percentage accessed the internet only at home, while 9.0 percentage only in the public booth.

98.9 percentage and 97.0 percentage of household heads with university and non-university higher education access to mobile telephony, respectively; followed by heads of households with secondary education (93.2 percentage) and those of primary education (79.6 percentage).

In recent times, those who have been using ICT are entrepreneur's women who run a micro, small and / or medium-sized company. It is now known that the Peruvian entrepreneurial women rate is higher than that of men's and this is due to the great effort they make to support their family, financially support at home, and improve living conditions and their environment.

Although it is recognized that Peru is one of the leading countries with entrepreneurs' women in the world, and that there are some of the best entrepreneurs, there are still not enough favorable conditions to support their entrepreneurship. This is limited by the business failure fear for lack of the education and business training, business financing support, and public policies that support the ICT use and its integration in company.

However, it must be recognized that the Peruvian government has been making efforts to support Peruvian enterprises, in recent years, by launching the Startup Peru Program, led by the Ministry of Production. The objective of the programs is to promote emergence and consolidation of the new companies that offer innovative products and services with a high technological content, projection to international markets and job quality generation.

It must also be recognized that in the countries of the Latin American region there is still very little investment in science, technology and innovation, although there is an increasing dynamism in the adoption of ICT in new ventures, in contrast to what happens with the countries that make up the Organization for Economic Cooperation and Development (OECD).

In Peru, the female entrepreneurship ecosystem is being promoted, and attempts have been made to offer necessary tools (government programs, educational programs, among others) to women, at each stage of their life development (girls, adolescents, adult women and elderly women), when they decide to launch their own business. To promote this female entrepreneurship ecosystem in Peru, it is necessary that from the academy, the student, accompanied by her teacher, can raise and develop a business idea, culminating with a business project presentation; that the government promote public policies, funds and educational and training programs for women to develop soft skills, specify their project, access credit, form a company and get it formalized; and that from the family group the support and the motivation to the woman be given to concretize these initiatives of entrepreneurship.

It is important that the Peruvian State and the companies should support projects, proposals or initiatives of entrepreneurs in the technology industry who are committed to closing the gender gap in order to attract young women and give them the opportunity to be trained, prepare them for the world of work in trades and occupations that the technology sector brings in the future.

In Peru, today, women who are working in the technology sector is a minority. It is estimated that less than 7.0 percentage of software developers are women, and it is likely that this is also happening in Latin America. This situation must be changed imminently, for several reasons; the first because women can stay out of the market where the jobs of the future will be and technology is increasingly important in the workplace; secondly, if women are not prepared for the use of technology, what is already seen with artificial intelligence, robotics, women will fall even further behind.

It is necessary to put into action the new paradigm of education for the 21st century, banishing traditional education that distinguished between education for men and for women, which started from an inequality and a prejudice: women are delicate, but not so studious, while men are ingenious and have more ability to learn.

In the knowledge society, education aims to cultivate among young generations abilities to think from the perspectives of science and technology, which are used in everyday life, but that objective has not been achieved yet.

The world of work is changing, and will continue to change with the irruption of technology at work, in the economy and in the lives of people, in a constant way; new careers, trades and activities will appear around future scientific and technological development, which is why, as already mentioned, schools need to prepare and create other forms of learning, perhaps more playful for children, young people, find a taste for the study of science, technology, engineering and mathematics (STEM) disciplines, which according to modern times, are forcing everyone to study, learn and train, permanently.

That is why we must motivate the few women who study engineering, mathematical sciences, technology to develop social projects, solidarity projects aimed at these other women, young and old, who have a business idea, have talent but need advice, accompaniment and training, among others, for the generation of companies that create new services and digital products.

Finally, what is expected in the future is that the female workforce in Peru is represented in the different hierarchies of the organizations, for example, that there be equal opportunities and participation in the total number of executives and members of the organization senior management of national and foreign companies; that the academy encourages and encourages more entrepreneurs to be trained, that a community of mentors can be created that can support these entrepreneurs.