

PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ
ESCUELA DE POSGRADO



**Consulting Report - Municipality of Surco: Ensuring the proper regulation
and formalization of commercial, industrial, and service-based**

**TESIS PARA OBTENER EL GRADO DE MAESTRA EN ADMINISTRACIÓN DE
NEGOCIOS OTORGADO POR LA PONTIFICIA UNIVERSIDAD CATÓLICA
DEL PERÚ PRESENTADA POR**

Leah Zeh Rugh, PASAPORTE: 663120925

**TESIS PARA OBTENER EL GRADO DE MAESTRO EN ADMINISTRACIÓN DE
NEGOCIOS OTORGADO POR LA PONTIFICIA UNIVERSIDAD CATÓLICA
DEL PERÚ PRESENTADA POR**

Miguel Angel Mamani Oscoco, DNI: 73785163

Elias Franz Xaver Schoissengeier, PASAPORTE: U7945260

ASESOR

Sandro Alberto Sanchez Paredes, DNI: 09542193

ORCID 0000-0002-6155-8556

JURADO

Rafael Alejandro Fernandez Concha

Sandro Alberto Sanchez Paredes


Luz Andrea Lazarte Aguirre

Surco, Septiembre 2024.

Declaración Jurada de Autenticidad

Yo, Sandro Alberto Sanchez Paredes, docente del Departamento Académico de Posgrado en Negocios de la Pontificia Universidad Católica del Perú, asesor(a) de la tesis/el trabajo de investigación titulado **Consulting Report - Municipality of Surco: Ensuring the proper regulation and formalization of commercial, industrial, and service-based** de los(as) autores(as) Miguel Angel Mamani Oscco, Leah Rugh y Elias Franz Xaver Schoissengeier, dejo constancia de lo siguiente:

- El mencionado documento tiene un índice de puntuación de similitud de 06%.
Así lo consigna el reporte de similitud emitido por el software *Turnitin* el 06/10/2024.
- He revisado con detalle dicho reporte y confirmo que cada una de las coincidencias detectadas no constituyen plagio alguno.
- Las citas a otros autores y sus respectivas referencias cumplen con las pautas académicas.
Lugar y fecha: Lima, 07 de octubre del 2024

| | |
|---|---|
| Apellidos y nombres del asesor / de la asesora: <u>Sanchez Paredes, Sandro Alberto</u> | |
| DNI: 09542193 |  |
| ORCID: 0000-0002-6155-8556 | |
| | Firma |

Acknowledgments

We would like to express our sincere gratitude to all the people who, in one way or another, made the completion of this thesis possible. This work would not have been possible without the support, dedication and commitment of those who accompanied us throughout this process.

First of all, we deeply thank our thesis coworkers, Leah Rugh, Miguel Mamani, and Elias Schoissengeier. Their dedication, effort and teamwork were essential to overcome the challenges of this research. Thank you for the mutual support, for the time invested in each deliverable and for the constant motivation that drove us forward.

We would also like to sincerely thank our advisor Sandro Sanchez for his knowledge, professionalism and constant feedback that helped us improve every aspect of this work.

We extend a special thank you to my colleague Daelí for her selfless collaboration in conducting the interviews. Her support was essential to obtain the necessary information and her willingness to always help was greatly appreciated.

Finally, we would like to thank our families and friends, who with their words of encouragement and their trust in us were a constant source of inspiration.

To all of you, thank you very much.

Dedications

To my friends and family, thank you for your constant support and unwavering belief in me.

A special thank you to my mom Amy Rugh, whose love and encouragement shaped who I am today. I am eternally grateful for everything you've done; I couldn't have achieved any of this without you.

Leah

Rugh This thesis is dedicated first and foremost to my parents, Claudia Oscco and Miguel Mamani, for believing in me and giving me wisdom and advice that has served me well, to my sisters Yulissa and Maricielo for their tireless and genuine support throughout the program. Also, to my grandmother Emilia Taipe, who taught me the value of effort, perseverance, and unconditional love. Thanks to you, I learned that dreams are achieved with dedication. This thesis was done thanks to you.

Miguel Angel Mamani Oscco

This master's thesis is dedicated to my loving girlfriend, Sabrina Stojanov, whose support guided me through challenging times and made crucial decisions easier. I also owe gratitude to my beloved mother, Klaudia Schoissengeier, and my aunt, Christine Reisinger, who have been my pillars of strength, offering wisdom and providing for me throughout my life. I am equally thankful to my sisters, Jacqueline Wohlgemuth and Gloria Tielas de Alba, for their belief in my academic journey, their shared knowledge and experience, and for convincing my mother to enroll me in grammar school. Lastly, I would like to express my heartfelt thanks to my brother-in-law, Robert Wohlgemuth, whose constant inspiration and motivation encouraged me to exceed expectations and pursue further education. Without all of you, this thesis would not have been possible.

Elias Franz Xaver Schoissengeier

Executive Summary

This research shows a solution to address the issue of labor informality in Santiago de Surco, Peru. The problem of informality affects over 80% of the economically active population in Santiago de Surco and thereby limits their access to social services, healthcare, and financial resources. Using a series of sprints and interviews, the researchers collected both qualitative and quantitative data, which shows that informal workers often lack knowledge about how to transition to formal employment. Many of these workers prefer to access information anonymously, such as through digital platforms or anonymous meetings.

Through their research, the team identified TikTok advertisements as the most effective medium for reaching informal workers in Surco. The platform's popularity of the targeted and mostly affected age group in Peru favors this solution. By using TikTok advertisements, the project wants to raise awareness about the benefits of formal employment, such as healthcare, pensions, and access to formal financial services. The solution also includes community events to educate further and engage informal workers and their shift towards formality.

The business model proposed by the researchers is also scalable. By making unpleasant information easily accessible through TikTok and local events, the solution helps to reduce barriers to formal employment. Since the economic growth of a country is strongly intertwined with the taxes gathered, this project is also improving the overall well-being of the community. The model's financial sustainability is supported by government subsidies and sponsorships, while its scalability allows it to be replicated in other districts, regions and countries beyond Peru facing similar challenges. This study highlights the potential of digital platforms like TikTok in addressing social issues and provides a roadmap to combat informality throughout Peru.

Abstract

Esta investigación muestra una solución para abordar el problema de la informalidad laboral en Santiago de Surco, Perú. El problema de la informalidad afecta a más del 80% de la población económicamente activa de Santiago de Surco y, por tanto, limita su acceso a los servicios sociales, la atención sanitaria y los recursos financieros. Mediante una serie de sprints y entrevistas, los investigadores recopilaron datos cualitativos y cuantitativos, que muestran que los trabajadores informales suelen carecer de conocimientos sobre cómo hacer la transición al empleo formal. Muchos de estos trabajadores prefieren acceder a la información de forma anónima, por ejemplo a través de plataformas digitales o reuniones anónimas.

A través de su investigación, el equipo identificó los anuncios de TikTok como el medio más eficaz para llegar a los trabajadores informales de Surco. La popularidad de la plataforma entre el grupo de edad al que se dirige y que es el más afectado en Perú favorece esta solución. Mediante el uso de anuncios de TikTok, el proyecto quiere concienciar sobre los beneficios del empleo formal, como la asistencia sanitaria, las pensiones y el acceso a servicios financieros formales. La solución también incluye eventos comunitarios para educar más e implicar a los trabajadores informales y su cambio hacia la formalidad.

El modelo de negocio propuesto por los investigadores también es escalable. Al facilitar el acceso a información desagradable a través de TikTok y eventos locales, la solución ayuda a reducir las barreras al empleo formal. Dado que el crecimiento económico de un país está fuertemente interrelacionado con los impuestos recaudados, este proyecto también mejora el bienestar general de la comunidad. La sostenibilidad financiera del modelo se apoya en subvenciones y patrocinios gubernamentales, mientras que su escalabilidad permite replicarlo en otros distritos, regiones y países más allá de Perú que se enfrentan a retos similares. Este estudio pone de relieve el potencial de plataformas digitales como TikTok para abordar problemas sociales y ofrece una hoja de ruta para combatir la informalidad en todo Perú.

Table of Contents

| | |
|--|-----------|
| Table of Contents | 3 |
| List of Figures | 5 |
| List of Tables | 9 |
| Chapter I: Defining the problem | 2 |
| Chapter II: User (and Customer) Research | 4 |
| 2.1 User profile | 4 |
| 2.2 User Experience Map | 5 |
| 2.3 Identification of the need to solve for the user | 7 |
| Chapter III: Product or service design | 7 |
| 3.1 Conception of the product or service | 8 |
| 3.2 Development of the Narrative | 11 |
| 3.3 Innovative and disruptive nature of the product or service | 12 |
| 3.4 Value proposal | 14 |
| 3.5 Minimum Viable Product (MVP) | 16 |
| Chapter IV: Business Model | 17 |
| 4.1 Business Model Canvas | 18 |
| 4.1.1 Identified Problem | 19 |
| 4.1.2 Purpose | 20 |
| 4.1.3 Value Proposition | 20 |
| 4.1.4 Value Chain | 20 |
| 4.1.5 Key Activities | 20 |
| 4.1.6 Key Resources | 22 |
| 4.1.7 Relationships | 22 |
| 4.1.8 Segments | 22 |
| 4.1.9 Channels | 23 |
| 4.1.10 Cost Structure | 24 |
| 4.1.11 Impact Metrics | 24 |
| 4.1.12 Income Streams | 25 |
| 4.2 Financial Viability of the Business Model | 26 |

| | |
|--|-----------|
| | 8 |
| 4.2.1 Projections of the Cost and Revenue Generation | 28 |
| 4.2.2 Cost Analysis: Headhunters and Employees vs. Freelancers | 29 |
| 4.2.3 Cost Analysis: Equipment and Venue Costs | 31 |
| 4.2.4 Cost Analysis: Break-even | 32 |
| 4.3 Scalability | 33 |
| 4.3.1 Expansion to Other Municipalities in Lima | 34 |
| 4.3.2 Expansion to Other Cities in Peru | 35 |
| 4.3.3 Expansion to Other Countries in South America | 36 |
| 4.3.4 Expansion to Other Emerging Market Countries | 36 |
| 4.4 Social Sustainability | 35 |
| 4.4.1 Directly Affected Sustainable Development Goals | 37 |
| 4.4.2 Indirectly Affected Sustainable Development Goals | 38 |
| Chapter V: Conclusions | 37 |
| References | 40 |
| Appendix | 45 |
| Appendix A: Calculation of the Cost-Options | 45 |

List of Figures

| | |
|------------------|-----------|
| Figure 1 | 4 |
| Figure 2 | 6 |
| Figure 3 | 8 |
| Figure 4 | 10 |
| Figure 5 | 11 |
| Figure 6 | 12 |
| Figure 7 | 16 |
| Figure 8 | 17 |
| Figure 9 | 17 |
| Figure 10 | 19 |
| Figure 11 | 22 |
| Figure 12 | 23 |
| Figure 13 | 25 |
| Figure 14 | 27 |
| Figure 15 | 32 |
| Figure 16 | 33 |
| Figure 17 | 35 |

List of Tables

| | | | | | | | | | |
|----------------|----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|
| Table 1 | 9 | Table 2 | 13 | Table 3 | 13 | Table 4 | 15 | Table 5 | 31 |
|----------------|----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|

Chapter I: Defining the problem

In Peru, several social problems have been affecting the population over the years and hindering its economic and social development. Among these problems, one of the most persistent and that has a high level of impact on society is informality. Therefore, the purpose of this research is to propose a solution to this problem focusing on one of the largest districts of Metropolitan Lima which is Santiago de Surco.

To better understand this social problem, it is important to define the term according to the interpretation of the country where this problem occurs. In Peru, informality is defined as productive units that are not registered with the National Superintendence of Customs and Tax Administration (SUNAT), which may include employers, independent workers, salaried workers without social security and unpaid family workers (Espejo, 2022).

As mentioned, informality includes productive units which, by their nature, are part of the labor sector. Therefore, explaining informality from this perspective will help to better understand the magnitude of the problem and its implications for society.

Currently, labor informality represents 71.9% of the total economically active population in Peru and it is expected that by next year this figure will continue to decrease (El Peruano, 2024). Additionally, there are characteristics of labor informality, some of them being the direct relationship between low-income workers and informality, and the low educational level of workers with the occupation of informal jobs, with women being the most vulnerable to this last condition (Kamichi, 2023). Therefore, it is important to mention that the informal employment rate represents 85.6% for people who achieved an educational level up to primary school and 75.4% with an educational level up to secondary school (Ministerio de Trabajo y Promoción del Empleo, 2023). The latter reveals that informality stems from other problems such as access to education. However, delving into this type of causes would lead to an analysis

beyond the scope of this research. Therefore, indicating the causes and consequences of informality would be relevant to the explanation of the problem and its relevance.

To this end, Kamichi (2023) presents three theories that explain the causes of labor informality in Peru: structuralist, liberal and contemporary approaches. The first is explained by a modern capitalism where not enough jobs are generated, so that the unemployed opt for informal work. The second is due to the multiple obstacles posed by bureaucracy to become formal. The last one refers to people working informally where the State has no regulatory scope.

As for the consequences of informality in Peru, there is a study by Loayza (2008) that reveals that informality causes the public infrastructure to be affected, hindering the tax revenue needed to supply it, also, because this infrastructure complements private capital, the informal sector would lead to a slowdown in productivity. As a result, tax collection plays an important role in the country's growth and the Gross Domestic Product (GDP) would be one of the indicators most affected by tax pressure. Therefore, if a higher tax revenue is obtained, the increase in public spending would be greater. This would lead to a greater demand for formal jobs which, in turn, would improve social service systems such as education, health, security and infrastructure (Kamichi, 2023).

After having explained the problem of informality in the Peruvian context, it is pertinent to explain how it affects the Municipality of Surco. In this case, although this district suggests that it is one of the best in terms of tax collection within Metropolitan Lima, labor informality is a problem that prevails in some economic activities such as street commerce, informal employment and microenterprises. According to an interview with Jean Lazo (2024), our contact from the Municipality of Surco, informality in Surco stems from a lack of knowledge on the part of informal workers about the benefits of formality: access to bank loans, and health insurance, among others.

Chapter II: User (and Customer) Research

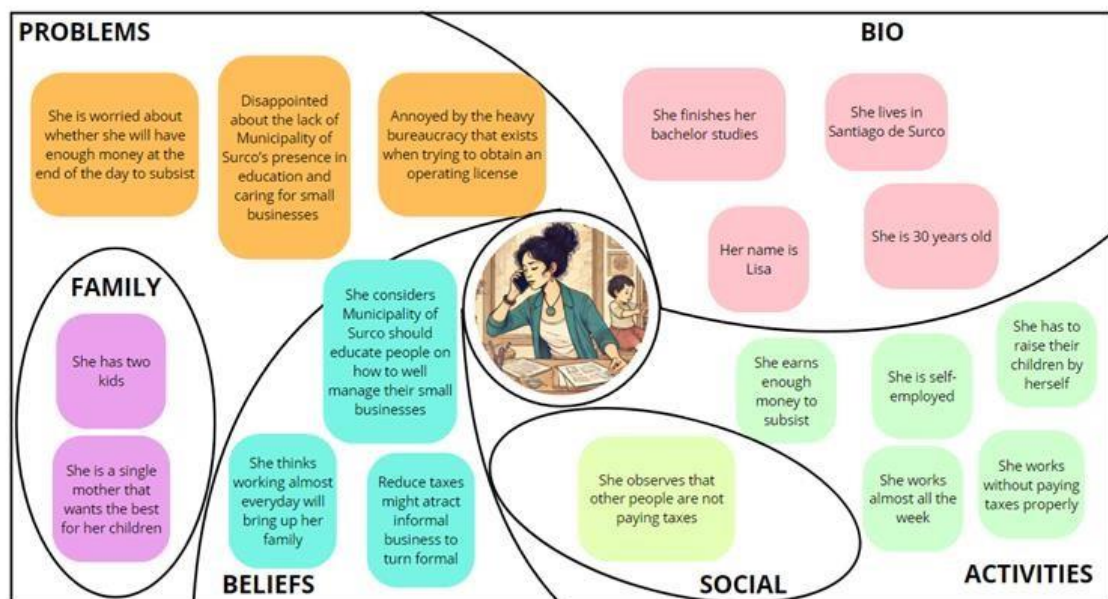
For research purposes, an analysis of the user profile was conducted through interviews with residents of the district of Santiago de Surco. For these interviews, it was determined that people had been affected by informal activities from a personal experience, as well as the knowledge of third parties affected by this social problem. To this end, about 15 people were interviewed, through whom relevant information about the perspectives of informality and its different dimensions could be extracted. In order to better understand the results of the interviews, we will proceed to explain in greater detail the user profile, and the experience map and identify the need to be resolved for the user.

2.1 User profile

As mentioned, the number of effective interviews amounted to 15. The information obtained was used to determine a profile that includes the characteristics that best represent the user: biography, problems, beliefs, main activities, family and social circle.

Figure 1

User Profile



Note. Own creation.

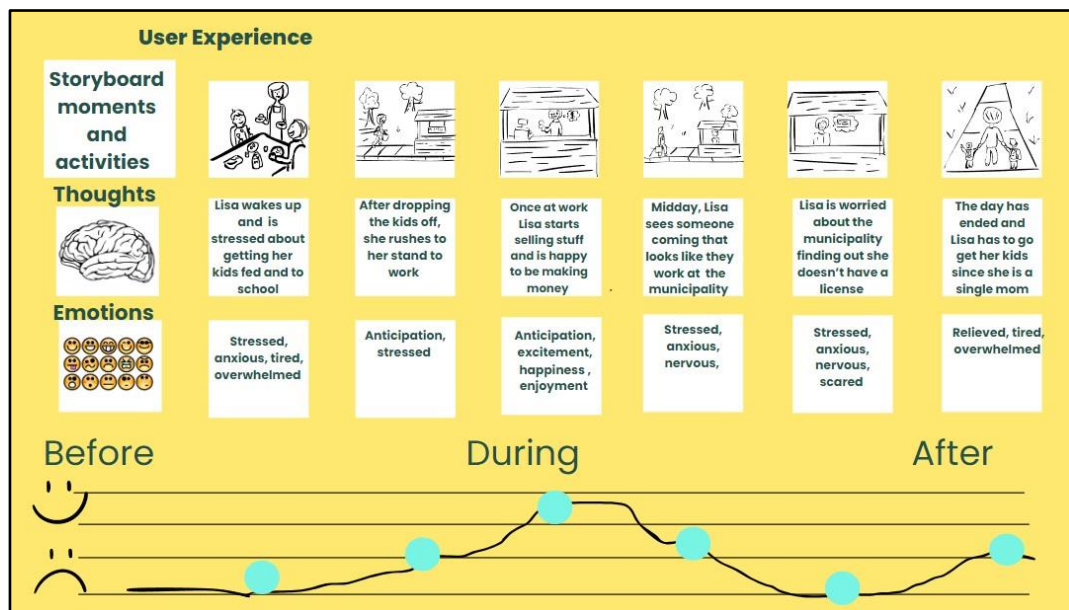
Regarding the biography of the user, it was determined that she is a woman whom we will call Lisa, who is about 30 years old, has finished her high school degree and currently lives in Santiago de Surco. As for the main problems, she is concerned about whether she will be able to survive with the money she earned working informally at the end of her working day; she is also disappointed by the lack of presence to educate small businesses and the cumbersome bureaucracy to obtain an operating license from the Municipality of Surco. Among his main beliefs, the user believes that by working every day he will be able to help his family have a better future; also, he believes that the Municipality of Surco should educate small entrepreneurs on how to manage their businesses well and that the reduction of taxes could cause informal businesses to choose to formalize.

The main activities performed by the user are the following: earning enough money to subsist; working without paying taxes properly; raising her children herself; and working almost every day of the week. The last two characteristics are divided between the family and her social circle, which are explained by her condition as a single mother who wants the best for her two children and who observes while she works that other people do not pay their taxes either, which leads her to replicate these actions with the objective of obtaining more money for her household and being able to subsist with her two children.

2.2 User Experience Map

Regarding the User Experience Map, it was used with the objective of obtaining insights about how the user interacts with the business or, in this case, the social problem: informality. From this, this tool will allow a better analysis by the research team since creating visualizations will promote creativity and development and promote the creation of multiple solutions (Ortbal et. al., 2016). On the other hand, concerning user analysis, the definition of contact points with the social problem of informality will allow a better understanding of the context in which this problem develops (Ortbal et. al., 2016).

Figure 2
User Experience Map.



Note. Own creation.

In Figure 2, a single mother named Lisa is shown. She wakes up with an emotional burden of stress, anxiety, and fatigue. These feelings are directly related to the pressure of having to organize her children's routine. The overwhelming nature of these responsibilities generates in her an emotional state of exhaustion and worry.

Following this, Lisa experiences a transition into anticipation and stress as she makes her way to her informal work station. At this point, her focus shifts to the need to generate income, which keeps her in a constant state of alertness. Once she starts working and begins to sell her products, her emotional state improves momentarily, as she feels satisfaction and enjoyment that her efforts are paying off. This shift of emotions from stress to temporary happiness is typical of the emotional dynamics of workers in precarious conditions, where earning income can provide immediate relief.

In the middle of the day, Lisa experiences a new peak of anxiety when she perceives the presence of a person who appears to be a city inspector. Fear and worry emerge from the possibility that they may discover that she does not have a license to operate, which could

jeopardize her only means of livelihood. This critical moment reflects the emotional vulnerability faced by informal workers, who live under the constant threat of sanctions or closure of their businesses. Anxiety and nervousness intensify, creating an atmosphere of uncertainty that marks most of their workday.

Finally, when Lisa picks up her children at the end of the day, her emotions are mixed between relief at having overcome the difficulties and accumulated fatigue. Although concerns about her work situation persist, the fact that she has made it to the end of the day without immediate consequences gives her a momentary respite. However, physical and emotional exhaustion is evident, reflecting how the constant struggle between informal work and family responsibilities generates a continuous emotional burden.

2.3 Identification of the need to solve for the user

After determining the user profile and analyzing the User Experience Map, it was possible to find the different needs of the user when facing informality. Among the main needs discovered are the need to formally register their business because they require access to legal benefits and protection against future actions against them. The second most important need is the lack of access to health insurance while working, as she seeks stable health not only for herself but also for her family. Finally, the third need is access to a pension plan in order to ensure financial security for herself and her family when she decides to retire.

Chapter III: Product or service design

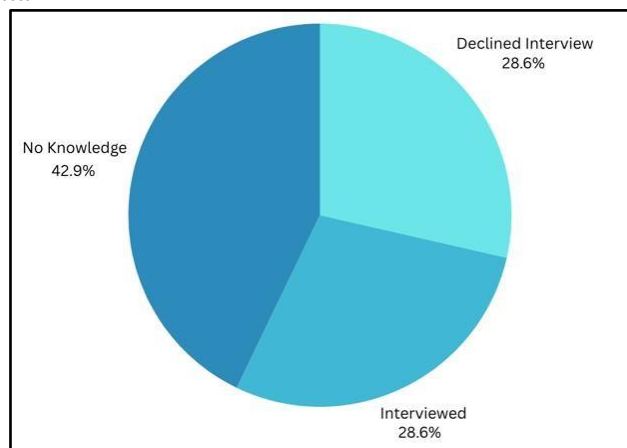
The agile process used to formulate a solution for working informally in the district of Santiago de Surco consisted of two main things: sprints used to collect information and analyze the prototypes and brainstorming amongst the researchers. The process took a total of three

months and consisted of three interview sprints. Below, the process of identifying the best viable solution will be analyzed.

On July 27th, 2024 the researchers set out to complete the first sprint in the race to find a solution for informality in Surco. The first sprint was used primarily for initial data collection. The interviews took just over two hours, during which thirty-five people were approached and asked about an interview. Of those thirty-five people, ten immediately declined the interview, and fifteen stated they had zero knowledge or experience with informality. Therefore, the first sprint consisted of ten interviews where the participants were asked questions about their experience with informality in Surco. All ten participants stated they personally had never worked informally, however, they all had friends or family members who had and they spoke about them during the interview.

Figure 3

First Sprint Data



Note. Own creation.

The following data and future sprints initiated the same way helped shape the researcher's solution for the social problem of informality in Surco.

3.1 Conception of the product or service

After the initial data collection process, the researchers held a brainstorming session where they came up with questions motivated by the information gathered during the first

sprint. For example, “How can Lisa be educated about the benefits that come with working formally, such as having health insurance?” Then, five to six solutions to these problems were generated. The solutions generated for the example question above are as follows: anonymous Zoom meetings, free library cards, groups designed for single moms, advertisements on TikTok, and the municipality offering weekly anonymous drop-in hours. Then the most viable solutions for each proposed action were compiled and evaluated.

Table 1

Implementation Complexity and Action Impact

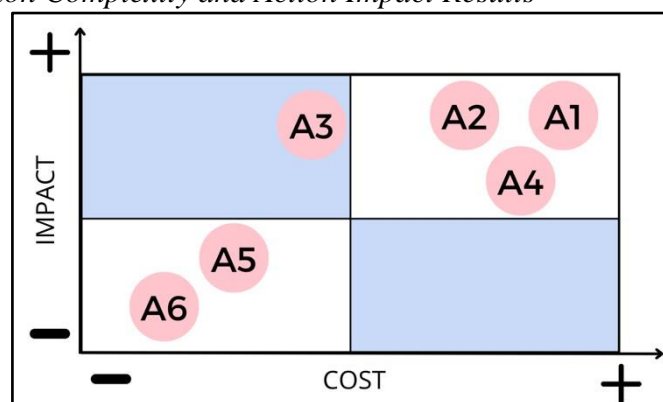
| PROPOSED ACTIONS | IMPLEMENTATION COMPLEX | | | ACTION IMPACT | | |
|---|------------------------|--------|------|---------------|--------|------|
| | LOW | MEDIUM | HIGH | LOW | MEDIUM | HIGH |
| A1: Simplified online registration portal | | | X | | | X |
| A2: Subsidized wage options | | | X | | | X |
| A3: Advertisements on tiktok | | X | | | | X |
| A4: Secondary/Univeristy education programs | | | X | | | X |
| A5: Weekend fairs/stands | X | | | | X | |
| A6: Anonymous drop in hours | X | | | X | | |

Note. Own creation.

The researchers then created a chart where they compared the results. The findings are as follows:

Figure 4

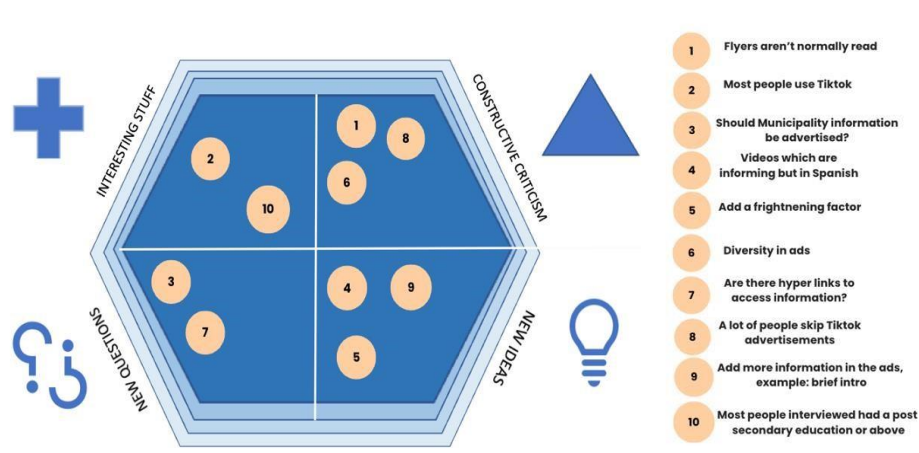
Implementation Complexity and Action Impact Results



Note. Own creation.

Based on research and numerous brainstorming sessions, the researchers concluded the most viable solution from an implementation cost perspective and an impact perspective, would be moving forward with TikTok advertisements. The researchers wanted to incorporate as many viable solutions as possible and therefore the advertisements on TikTok would be twofold and promote other solutions from the table above. One advertisement shown on TikTok would be informing citizens about weekly fairs and stands where workers hand out information regarding the benefits of working formally. For example, the stands would have informational pamphlets where citizens can learn about pension systems, health insurance benefits, and more. Another stream of advertisements would be informing citizens about weekly anonymous office hours offered at the municipality where citizens can come in and ask any questions they may have without fear of repercussions. During the informational sprint described above, two-thirds of people did not want to talk about informality, and no one wanted to implicate themselves as someone who worked informally. Everyone who was willing to be interviewed either wanted to speak about someone else's experience or wanted to remain anonymous.

On August 7th, 2024 the researchers interviewed seven participants to test out their given solution prototype. Similar to the first sprint, the participants were asked a variety of generic demographic questions. These included age, currently living place, education level, and more. However, since this was a feedback sprint, the participants were also asked if they use TikTok or if they look at advertisements when walking around town, to which they all said yes to TikTok and only two said they take notice of advertisement flyers. Then the participants were asked directly about our solution: Would seeing advertisements on TikTok for anonymous office hours in the Municipality and weekend fairs be of interest to them? All the interviewees stated this would be a helpful and accessible way to receive information. The diagram below outlines the researchers' main findings during the second sprint.

Figure 5*Main Findings During the Second Sprint*

Note. Own creation.

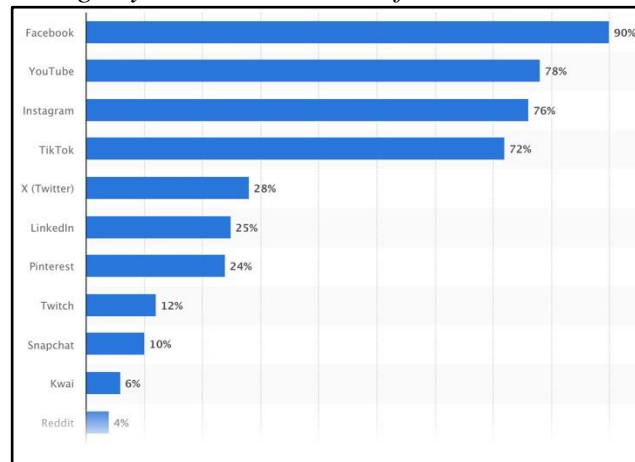
From the second sprint, the researchers learned their flyers idea was not very useful and moved forward only with the TikTok prototype. On August 11th the researchers conducted their third and final sprint. The researchers interviewed nine participants and followed a similar model as their second sprint, starting with demographic questions and then moving on to prototype specific questions. These interviews reflected similar results as the second sprint. Every interviewee stated they used TikTok and liked the idea of getting important micro information during their daily scrolling.

3.2 Development of the Narrative

The sprints completed on August 7th and 11th yielded important qualitative data. In order to substantiate the qualitative data, the researchers have provided quantitative data below.

Figure 6

Social Network Usage by Brand in Peru as of March 2024



Note. Sourced from DataReportal (2024)

As seen in the figure above, 72% of people living in Peru use TikTok. Furthermore, the state of Peru from a digital lens was analyzed and the following facts were discovered. “A total of 37.90 million cellular mobile connections were active in Peru in early 2024, with this figure equivalent to 109.8 percent of the total population” (DataReportal, 2024). According to Datareportal, in January 2024, Peru had 24.05 million people active on social media.

The complementary quantitative data stated above acted as supporting data for the qualitative interviews conducted by the researchers. The data above showed how active Peruvians are on the internet and social media in general. At this point in the agile research method, the researchers gave their quantitative and qualitative findings to their municipality representative, Jean Lazo, for approval. Approval was granted and the process continued.

3.3 Innovative and disruptive nature of the product or service

In 2024, a study titled *The Advertising on TikTok and the Attitude of University Consumers in Peru* was conducted (Flores-Mamani et al., 2024). The main findings are outlined below in the tables.

Table 2*Advertising of Services*

| Ideological dimension and politics | | Never | Almost never | Sometimes | Almost always | Always | Total |
|--|----|-------|--------------|-----------|---------------|--------|--------|
| I share advertising on Tik Tok about political organization | fi | 191 | 52 | 82 | 35 | 20 | 380 |
| | % | 50,3% | 13,7% | 21,6% | 9,2% | 5,3% | 100,0% |
| I share a message on Tik Tok about youth rights | fi | 167 | 54 | 99 | 40 | 18 | 378 |
| | % | 44,2% | 14,3% | 26,2% | 10,6% | 4,8% | 100,0% |
| I share a message on Tik Tok about student rights | fi | 166 | 58 | 102 | 33 | 22 | 381 |
| | % | 43,6% | 15,2% | 26,8% | 8,7% | 5,8% | 100,0% |
| I share messages on Tik Tok about religion | fi | 202 | 76 | 76 | 16 | 11 | 381 |
| | % | 53,0% | 19,9% | 19,9% | 4,2% | 2,9% | 100,0% |
| I share messages on Tik Tok to invite the evangelical church | fi | 264 | 49 | 53 | 3 | 12 | 381 |
| | % | 69,3% | 12,9% | 13,9% | 0,8% | 3,1% | 100,0% |

Note. Sourced from Flores-Mamani et al. (2024).

Table 3*Ideological and Political Advertising*

| Services dimension | | Never | Almost never | Sometimes | Almost always | Always | Total |
|--|----|-------|--------------|-----------|---------------|--------|--------|
| I share advertising/message on Tik Tok about transport service | fi | 201 | 68 | 71 | 22 | 19 | 381 |
| | % | 52,8% | 17,8% | 18,6% | 5,8% | 5,0% | 100,0% |
| I share advertising on Tik Tok about restaurant service | fi | 201 | 58 | 81 | 29 | 11 | 380 |
| | % | 52,9% | 15,3% | 21,3% | 7,6% | 2,9% | 100,0% |
| I share advertising on Tik Tok about dance academies | fi | 194 | 77 | 74 | 17 | 19 | 381 |
| | % | 50,9% | 20,2% | 19,4% | 4,5% | 5,0% | 100,0% |
| I share advertising on Tik Tok about the university library | fi | 179 | 62 | 92 | 25 | 21 | 379 |
| | % | 47,2% | 16,4% | 24,3% | 6,6% | 5,5% | 100,0% |
| I share advertising on Tik Tok about sports activities | fi | 150 | 45 | 92 | 45 | 48 | 380 |
| | % | 39,5% | 11,8% | 24,2% | 11,8% | 12,6% | 100,0% |

Note. Sourced from Flores-Mamani et al. (2024).

The results from both tables show the majority of people are unlikely to share advertising messages. Based on this research, it would not be advisable to rely on citizens to share advertising messages.

According to Kingdom Digital (2022), 42.7% of people worldwide use an ad blocker. However, this statistic does not apply to TikTok. In fact, TikTok changed how people view advertisements. According to Kingdom Digital (2022), “72% of TikTok users consider ads on the platform inspiring, 45% of users feel more connected to brands that offer value on TikTok, and 49% of users said TikTok helped them make purchase decisions.”

TikTok's distinctive platform characteristics and user interaction tactics make it an innovative way to relay information in Surco. According to the TikTok business help center, advertisements should be between five and sixty seconds on TikTok (TikTok, n.d.). Therefore, the advertisements are short and to the point, but often times also funny or attention grabbing. Furthermore, "93% of TikTok users spend time on the platform with sound on" (TikTok, n.d.). As stated above 72% of citizens in Peru use TikTok. Therefore, the solution has the potential to reach 72% of Peru's population. The advertisements were designed to have multiple innovative features. The researchers found in the sprints that participants responded most to advertisements that add attention grabbing factors such as sound, diversity, and an emotive hook in the beginning. Furthermore, the advertisement would run for fifteen seconds only, allowing a quick absorbing snippet of information.

During the sprints, it became apparent that people currently living and working informally in Surco do not fully understand the repercussions of doing so and are concerned about getting in trouble while seeking information. As of now, the main way people in Surco find information is through government webpages such as gob. pe. However, reading through everything can be time consuming and confusing. As seen above in the meta user canvas, the typical person living and working in Surco does not have a lot of time, and their day is filled with time consuming tasks. Therefore, they do not have a lot of time to research their options or educate themselves on the benefits of working formally. TikTok advertisements could disrupt the high percentage of people working informally by offering readily available information in an accessible and short video.

3.4 Value proposal

Table 4

User Experience Results

| Joys | Frustrations | Jobs | Generator | Reliever |
|--|---|--|--|--|
| Being able to pay their bills and have shelter | Lack of health insurance (most important) | Make enough money to provide for their families (Functional) | More qualified and prepared business people | Having easy access to information through Tiktok |
| Not working such long hours | Pension system, issues when retiring | Do not want to be perceived in a negative way (Social) | More information in social media about formality benefits | Tailored information for small business |
| Having benefits, a pension, time off, security, and safety | Income volatility | Security and assurance (Emotional) | More government support (Municipality) to the small businesses | Professional development opportunities |
| Having the ability to progress in their career (least) | Constantly working long hours | Secure food and shelter (Functional) | Better jobs in terms of formality and benefits | Access to bank's finance. |

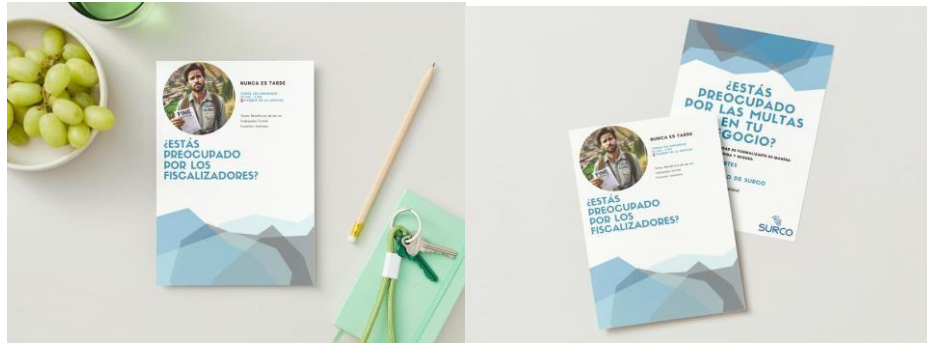
Note. Own creation.

The table above highlights the advantages and disadvantages of user interactions. Having a secure place to live and the means to pay their expenses provides users happiness, but the absence of health insurance and problems with the pension system are the biggest sources of annoyance. Furthermore, individuals highly appreciate having effortless access to information, especially via apps like TikTok, which functions as an essential "joy generator" by offering important and easily accessible information. Improved access to banking and financial services, professional development opportunities, and stronger government assistance can all help to mitigate major grievances like income unpredictability and excessive work hours.

3.5 Minimum Viable Product (MVP)

Figure 7

First Prototype



Note. Own creation.

As seen above, the first prototype was created to be a flyer that was placed around Surco and provided the same information as the TikTok advertisements. However, after the sprint sessions, the researchers got negative feedback about the flyers. Most people stated they normally pass flyers by. Furthermore, the researchers felt as if the flyers would have a negative impact on the environment and also could cause more trash around Surco. For these reasons, the researchers moved on to TikTok advertisements.

Figure 8

Second Prototype

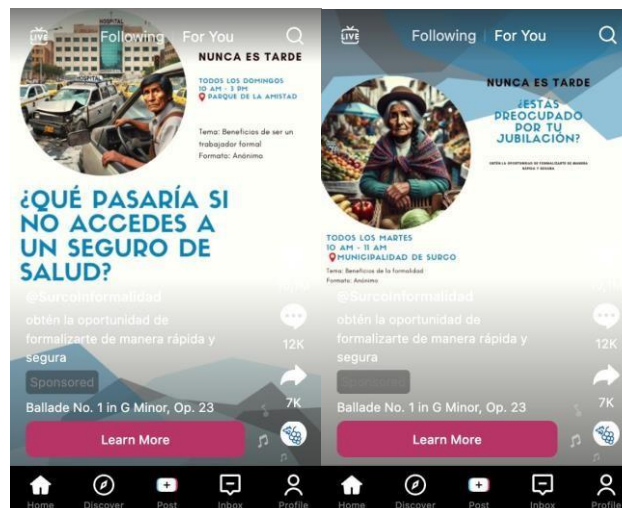


Note. Own creation.

Above are the researchers' final prototypes. The researchers tried out two different forms of advertising. On the left is the more subtle version that just relays information. On the right, the advertisement is meant to grab the attention of the user.s. The question asks in Spanish "What would happen if you don't have access to health insurance?" Below the prototype can be seen blown up.

Figure 9

Final Prototype Example



Note. Own creation.

Chapter IV: Business Model

The following sections give insights into the financial viability, scalability, and social impact of the researchers' business model aimed to combat informality in Santiago de Surco,

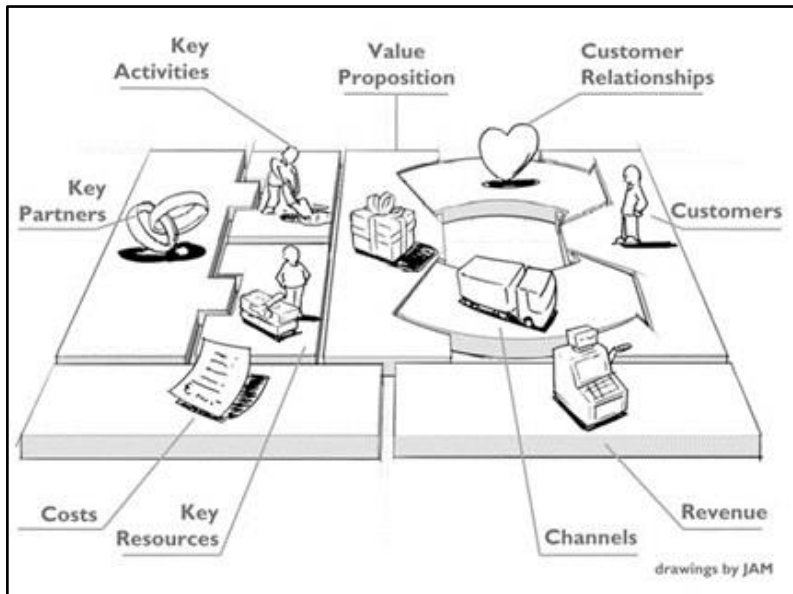
Peru. By using TikTok advertisements and local events, the model educates informal workers, which thereby creates a transition to formal employment. This formal employment improves access to social services and creates economic growth. The analysis also highlights how the model can be expanded to other regions, cities and countries while contributing to long-term social and economic development.

4.1 Business Model Canvas

The Business Model Canvas founded by Alexander Osterwalder and his professor Yves Pigneur was implemented as a management tool to find a strategy for tackling a problem (Osterwalder & Pigneur, 2010). The researchers used a derivated version which is divided into four different sections. The heart of the canvas, which is the What part, is derived from the original as represented in Figure 10. Here the problem gets identified, the purpose discussed and the value proposition shown. In the How section, the key activities, the key resources, and the value chain are addressed to picture how the problem can be solved. In the Who section the main user is identified. Finally, the How much section shows the cost structure, the income streams, and the impact the idea has on solving different problems.

Informality is a problem which is important to solve because it not only affects the economic stability of the country of Peru but also every individual living inside its ecosystem (Aurazo & Gasmi, 2022). The researchers propose a strategy to solve this problem specifically in the municipalidad of Santiago de Surco, Peru. With TikTok advertisements and events to educate individuals being affected by informality and creating a shift towards formal employment, the solution is also viable on a global scale.

Figure 10
Business model canvas



Note. Sourced from Osterwalder, A., & Pigneur, Y. (2010)

4.1.1 Identified Problem

The researchers found out during the interview with Jean Lazo who is the researcher's contact person for the Municipalidad of Surco that 80% of the economically active population in Surco is facing informality (Lazo, 2024). This limits their access to social services like healthcare and pension systems, and financial resources like credit since the requirements are not fulfilled (*The Healthcare Landscape in Peru: Challenges and Progress*, 2023), (*Oficina De Normalización Previsional - ONP*, 2024), (*Asociación de AFP*, 2024), (*Banco De Crédito Del Perú | ViaBCP*, n.d.). Furthermore, this social problem creates poverty and inequality, as informal workers are excluded from essential services and protection infrastructure (Aurazo & Gasmi, 2022). Additionally, the lack of formal employment reduces government revenues that could be used for social and public infrastructure (Aurazo & Gasmi, 2022).

4.1.2 Purpose

Formal employment can be used for tracking of excessive use of resources. This can reduce pollution and lead to long-term environmental benefits, like energy efficiency and better resource management. Socially, the model creates poverty reduction, inclusion, and equity. More transparency and law enforcement are increasing government revenues, which then supports better welfare services for municipalities (Aurazo & Gasmi, 2022). Furthermore, customers benefit from stable employment, the ability to support their families, secure housing, and improved working conditions with benefits like pensions and career progression.

4.1.3 Value Proposition

The gain creators of the proposed solution focus on fostering more qualified human resources, raising awareness about the benefits of formality through social media, and strengthening government support for small businesses. This leads to better job opportunities with formal employment benefits and improved financial stability for workers. Pain relievers are the access to loans, professional development, and information on pension systems, and healthcare.

4.1.4 Value Chain

The value chain includes the production of TikTok videos, the organization of community events, and the distribution of information through fairs and social media. Partnerships with the municipality and local businesses help the outreach of these activities (Della Rocca, 2017). Additionally, the project uses digital platforms to expand its reach (Molland, 2021).

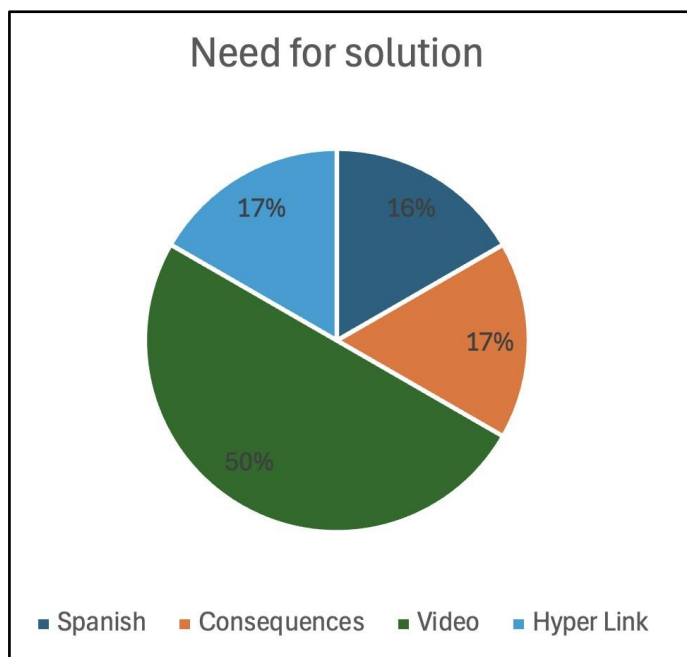
4.1.5 Key Activities

The project's key activities include creating educational content for the municipalidad's TikTok channel, organizing local fairs, and working with municipalities to distribute

information. Monitoring engagement metrics and feedback from TikTok not only gives valuable insights and statistics about macroeconomic data but also ensures continuous improvement of the service and targets the right group (Chung et al., 2022). Creating sponsorships and partnerships is also important for these activities (*2020 Report: How Partnerships Accelerate Sustainable Development Goals: A Time for Transformative Partnerships*, n.d.). Additionally, as seen in Figure 11 below and according to the interviewees, the advertisement must be a Video in Spanish that shows the consequences of informality and also has to contain a Hyperlink.

Figure 11

Votes on the topic of the format and content the advertisements should contain (Interviews were conducted in Spanish)



Note. The interviews were conducted in Spanish (n=10 persons interviewed). The question was formulated open and therefore interviewees could provide more than one answer. The answers were encoded and cumulated.

4.1.6 Key Resources

The solution is dependent on human resources such as content creators, graphic designers, event organizers, and marketing specialists, as well as partnerships with local governments and sponsors. Equipment for video production, events and access to TikTok's ad platform are also critical resources. Furthermore, financial resources from government subsidies and private sponsors help to realize the project.

4.1.7 Relationships

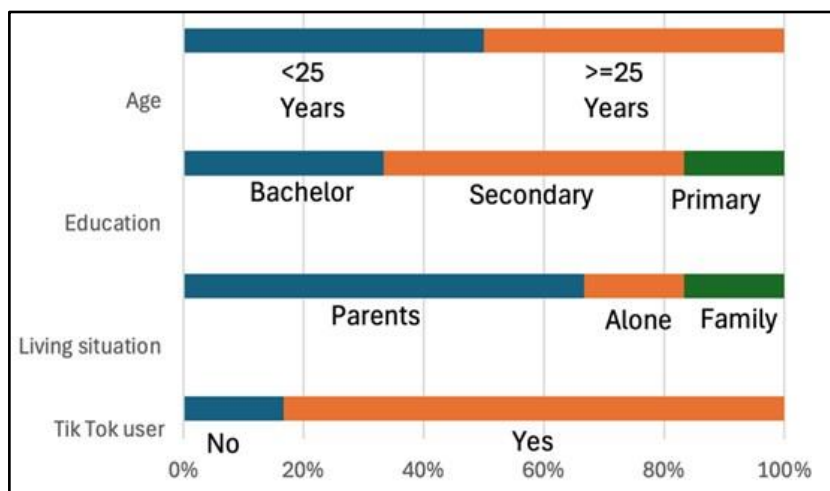
Strong relationships with local municipalities and sponsors are crucial to the success of the project, as they provide both financial support and legal information (Della Rocca, 2017). Direct engagement with informal workers at community events helps to build trust which then creates long-term relationships to further provide help along the transformation process. Additionally, partnerships with NGOs offer opportunities for further expansion and collaboration (funds for NGOs, n.d.).

4.1.8 Segments

As the researchers found out during the interviews, the target audience consists of informal workers aged 25-40, especially women and low education as seen in Figure 12, who are seeking stability through formal employment. Furthermore, according to the interviews out of the ten persons interviewed 65% live with their parents and 85% persons use TikTok regularly which is according to the trend presented in chapter 4.2.1. These individuals are digitally connected and often use social media platforms like TikTok. The project specifically targets this group, providing them with tailored content as presented in chapter 4.2.1 to assist in their transition to formal work.

Additionally, to Lisa's profile it is important to include other profiles. This diversification in profiling is essential, as the demographic data from Figure 12 indicates a significant number of bachelor graduates among informal workers. This finding is consistent with external data from Statista, which reports that 47% of TikTok users in Peru are Millennials, 56% are male, and 40% hold a bachelor's degree or equivalent. Furthermore, 47% of TikTok users show interest in topics related to careers or education, highlighting the platform's potential for targeted educational campaigns. This correlates with the interview answers from figure 12, confirming the value of including these diverse worker profiles in our strategies to address informality (*Web Login Service, n.d.*).

Figure 12
Demographics of the interviewees



Note. The interviews were conducted in Spanish (n=10 persons interviewed)

4.1.9 Channels

The primary channels for outreach include TikTok advertisements, local community events, and partnerships with municipalities. TikTok creates engaging, short-form content delivery, reaching a wide audience efficiently. Face-to-face events at fairs provide a deeper and

more personal engagement, while the collaboration with local governments ensures a broader distribution of information (*2020 Report: How Partnerships Accelerate Sustainable Development Goals: A Time for Transformative Partnerships*, n.d.).

4.1.10 Cost Structure

Major costs as seen in Chapter 4.2 include the production of TikTok videos, the organization of the fairs, and the creation of informational materials. Additional expenses include the hiring of professionals for content creation, management in general and event management, as well as marketing on social media platforms. The researchers calculated costs for this initiative to 18,390 PEN for the first month and then to 17,865 PEN for the consecutive month as seen in Table 5 . This estimate considers the usage of equipment for 4 years with 8 events per month. Partnerships and government subsidies help to cover the costs, ensuring the initiative remains sustainable.

4.1.11 Impact Metrics

The solution addresses several Sustainable Development Goals (SDGs) as shown in Figure 13. By moving informal workers to formal jobs, it directly reduces poverty (SDG 1) and hunger (SDG 2) through stable incomes and access to social protections. It improves health (SDG 3) via healthcare benefits and promotes decent work and economic growth (SDG 8) through better labour markets and increased tax revenue. Additionally, it tackles inequality (SDG 10) by offering legal protections and fair income distribution, especially for disadvantaged groups. Indirectly, the solution also supports education (SDG 4), gender equality (SDG 5), and innovation (SDG 9), and enhances environmental management (SDGs 12, 13, and 15) through better tracking of informal activities. The amount of impact can be measured by the number of informal workers who access any of the mentioned information resources in chapter 4.1.5, like the engagement with TikTok content, and the number of transitions into

formal employment. Engagement metrics such as TikTok views, shares, and likes provide insight into the project's digital reach. The attendance of community events and increased participation in formal employment programs serve as key indicators of long-term impact.

Figure 13

Affected SDG goals (Comparison between south America, Peru and Emerging market countries)



Note. Sourced from *Sustainable Development Report 2024*. (n.d.).

4.1.12 Income Streams

The project's income streams include government subsidies, ranging from PEN 10,000 to PEN 50,000 per year as seen in comparable projects (Ugarte, 2021). However, government and private sector funding mechanisms for small to medium-sized initiatives in Peru can vary widely, depending on the specific project, sector, and goals. For example, the Innóvate Perú program provides support, and many initiatives such as virtual solutions receive grants in the range of 60,000 PEN per year (Ugarte, 2021). Meanwhile, smaller subsidies, typically range between 4,000 to 20,000 PEN as seen in the example of Trisong Grants, and are available through local municipal support or targeted programs (fundsforNGOs, n.d.). These programs aim to boost innovation and formalization (Admin, 2022).

Furthermore, sponsorships from businesses are calculated to provide an estimate between PEN 1,000 and PEN 5,000 per month. These funds support ongoing activities such as content production and community events. Partnerships with businesses and municipalities provide additional financial and logistical support.

This project can benefit from a 60,000 PEN grant from Innóvate Perú, which aims to support innovative solutions to social challenges. Local banks such as Banco de Crédito del Perú (BCP) could provide up to 5,000 PEN each month. They would support this project to help newly formalized workers learn about banking. This sponsoring creates an incentive for these workers to become new customers in the future. Health service providers like Clínica San Felipe might sponsor the project to reach more people who will now have health insurance. Retailers like Plaza Vea and Tottus could give money to help create a more reliable workforce which is improving the shopping environment and boosting sales. Construction firms such as Graña y Montero could fund the project as well with their sponsorships to develop a community that could afford better homes which is increasing demand for their projects.

4.2 Financial Viability of the Business Model

Assessing the financial viability of the proposed solution is critical for ensuring its longterm success and sustainability. Financial viability refers to the ability of a project or initiative to generate sufficient revenue to cover its costs. Ensuring it can continue to operate effectively over time. In the case of promoting formal employment through TikTok ads and community outreach in Santiago de Surco, Peru, analyzing the financial aspects of the model is essential to determine whether the resources invested will yield the expected outcomes, such as increased formalization and economic stability through less poverty and more taxes which can be used for public projects like the construction of schools.

Moreover, understanding the cost structure, potential revenue streams, and break-even points provides insight into whether the project can be scaled or replicated in other regions which is discussed in the following chapter 4.3.

Evaluating the financial viability also allows for the identification of cost-saving measures, the optimization of resources, and the attraction of potential investors or sponsors who are interested in supporting a financially sound and impactful project. To grant the abovementioned financial evaluation needs to happen constantly and results in constant adjustments when it comes to the workforce size of the events and amount of advertisements. Therefore, this needs to be an iterative process.

The business model is financially viable due to its cost-effective use of TikTok advertisements, which ensures broad outreach at relatively high costs compared to other social media platforms as seen in Figure 14 below. With a balanced combination of digital and supplementing physical outreach, the project gains enough attention to get sponsorships and public subsidies, which leads to the fact that the project maintains a steady revenue stream due to the sponsorships and subsidies as discussed in chapter 4.1.12. Additionally, the flexible use of freelancers further enhances financial sustainability by reducing fixed personnel costs.

Figure 14

Cost comparison of social media advertisements.

| | | |
|--|--|---|
| <p>Instagram</p> <p>Avg. CPC (cost per click) \$0.00 – \$0.25</p> <p>Avg. CPM (cost per 1000 impressions) \$0.00 – \$4.00</p> <p>Avg. CPE (cost per engagement) \$0.03 – \$0.08</p> | <p>Facebook</p> <p>Avg. CPC (cost per click) \$0.26 – \$0.50</p> <p>Avg. CPM (cost per 1000 impressions) \$1.01 – \$3.00</p> <p>Avg. CPL (cost per like) \$0.00 – \$0.25</p> <p>Avg. CPA (cost per download) \$0.00 – \$1.00 \$4.01 – \$5.00</p> | <p>LinkedIn</p> <p>Avg. CPC (cost per click) \$2.00 – \$3.00</p> <p>Avg. CPM (cost per 1000 impressions) \$5.01 – \$8.00</p> <p>Avg. CPS (cost per send for Sponsored InMail campaigns) \$0.26 – \$0.50</p> |
| <p>Pinterest</p> <p>Avg. Cost per Click \$0.00 – \$0.10</p> <p>Avg. Cost per Conversion \$0.00 – \$2.00</p> <p>Avg. CPM (cost per 1000 impressions) \$0.00 – \$0.50 \$1.01 – \$1.50</p> | <p>YouTube</p> <p>Avg. CPV (cost per view) \$0.31 – \$0.40</p> | <p>Twitter</p> <p>Avg. Cost per First Action (for promoted tweets) \$0.26 – \$0.50</p> <p>Avg. Cost per Follow (for promoted accounts) \$1.01 – \$2.00</p> |

Note. TikTok has an average cost of 1\$ per click. Retrieved from *Berry, S. (n.d.)*

4.2.1 Projections of the Cost and Revenue Generation

The business model is designed to address informality by using a mix of TikTok advertisements and physical events held in local parks like Friendship Park where the researchers held the interviews. According to *Santiago De Surco (District, Lima Metropolitan Area, Peru) - Population Statistics, Charts, Map and Location*, n.d. in 2017 there were 264,343 inhabitants out of the 378,978 inhabitants in Santiago de Surco which have aged between 1564 years and are therefore eligible to work (*HKTDC Research*, n.d.). Correcting this by the actual number of 420,016 persons according to *Santiago De Surco En El Departamento De Lima - Municipio Y Municipalidad De Perú*, n.d. there are projected to be 292,967 people who are at the age of being able to work. Out of these according to Jean Lazo 80% of them are facing informality. This estimates up to 234,374 inhabitants facing informality. According to Kemp, 2024 there were 21.91 million TikTok users in 2024 in Peru which calculates according to the 2023 population of Peru of 34.35 million inhabitants to approximately 63% of the population using TikTok in Peru (*World Bank Open Data*, n.d.). This leads to a projected 147,655 persons which are potential targets for the advertisements. According to *Web Login*

Service, n.d. 62% of the target group remember seeing the TikTok advertisements. Therefore, an estimate of 91,546 impressions is possible to reach. Considering the 1,5-3% Click-through rate (CTR) for in-feed ads content which is the aimed format of the delivery. According to Nyembe, 2024, TikTok's In-feed ads are advertisements that appear naturally within a user's social media feed. The Click-through rate (CTR) measures how often people click on an ad or link compared to how many times it's shown, showing how engaging it is. Considering 1,0% this leads to 915 clicks which costs approximately 3,449 PEN. For the eight advertisements per month, 10,500 PEN will be calculated per month for the tailored advertisements.

Monthly operational costs are estimated at approximately PEN 18,390 during the first month, with the major expenses being TikTok ads. The monthly freelancing cost, which includes the event manager, marketing person, graphic designer, videographer, and Municipalidad support, amounts to PEN 7,700. Starting from the second month, the freelancing cost will decrease by PEN 525 as the event setup will be completed, and the services of the event manager will no longer be required. TikTok ads are expected to cost around PEN 10,500 per month as calculated above, making them a cost-effective medium due to their high reach in Peru, where 72% of the population uses TikTok. The equipment costs, including the purchase of banners, promotional materials, chairs, tables, a camera, and a microphone, total PEN 9,100. These costs are projected over 4 years with 8 events per month, resulting in an average monthly cost of PEN 190. Government subsidies, ranging between PEN 10,000 and PEN 50,000, and sponsorships from businesses (between PEN 1,000 and PEN 5,000 per month) form the core revenue streams, ensuring the project can meet its operational needs.

4.2.2 Cost Analysis: Headhunters and Employees vs. Freelancers

According to *Peru Wages 2024*, n.d. The current minimum wage in Peru is 1,025 PEN per month which is approximately 267 USD for a full-time workload of 48 hours per week.

This rate can be applied across many sectors to ensure workers have access to a standard living wage. According to *Peru Wages 2024*, n.d., the average wage in Peru is 1,951 PEN per month which is around 509 USD, with high variance based on factors such as industry, location, and skill level (TimeCamp S.A., n.d.). Highly skilled employees can earn up to 3,830 PEN per month which is approximately 1,093 USD depending on their expertise and the demand for their roles.

The researchers chose higher pay for employees and lower pay for freelancers because freelancers usually give their best effort since they only have one chance to succeed. In contrast, employees were viewed as less efficient due to the stability and security of their jobs. (Butschek et al., 2022).

The researchers compared the costs of hiring human resources through a headhunter versus using freelancers. In the case of a headhunter, the upfront costs are significant with a range between 15-30% of the salary of the candidate (Miller, 2023). The researchers calculated with an estimate of approximately 18% commission on the first year's salary to get quality personnel and more importantly, get it quickly to not waste the time necessary to create change. For example, an event manager hired through a headhunter would cost PEN 5,250 per month, plus an additional PEN 945 in fees per month for the headhunter (Tables, 2021). In contrast, hiring freelancers significantly reduces initial costs, with monthly expenses for freelancers such as event managers, graphic designers, and videographers totalling PEN 7,700 for the first month to plan the initial event and then for the following it would add up to PEN 7,175 because the events will be routine. According to Team (2024), hiring an employee leads to a lot of additional costs. As seen in the Appendix A, the option of using freelancers is more efficient than employing human resources.

4.2.3 Cost Analysis: Equipment and Venue Costs

The researchers also analyzed the cost of renting versus purchasing equipment for the events. Renting event spaces and equipment such as cameras, tables, and chairs is estimated to cost PEN 9,240 per month while purchasing equipment upfront would cost approximately PEN 9,100, which would be amortized over four years. This makes purchasing equipment a more cost-effective option as seen in the following Table 5. In the long term, the monthly cost would drop to around PEN 109 when spread over the equipment's usage period.

Table 5*Cost structure: Final*

| |
|---|
| <p>Freelancing Parties</p> <ol style="list-style-type: none"> Event Manager: <ul style="list-style-type: none"> • Fee: Approximately PEN 525 for initial event support Marketing Person: <ul style="list-style-type: none"> • Fee: About PEN 2,100 per month for ongoing campaigns. Graphic Design Person: <ul style="list-style-type: none"> • Fee: Roughly PEN 175 per design-> estimated 5 designs per month = PEN 875. Videographer: <ul style="list-style-type: none"> • Fee: Around PEN 700 per video-> estimated 2 videos per month = PEN 1,400. Municipalidad Support: <ul style="list-style-type: none"> • Fee: PEN 350 per day-> estimated 8 days per month = PEN 2,800. <p>Monthly Total for Freelancing: first month PEN 7,700 then PEN 7,175 per month</p> <p>Costs for TikTok Ad Campaign</p> <ul style="list-style-type: none"> • TikTok Ad Campaign across Municipalidad of Surco: <ul style="list-style-type: none"> • Budget: PEN 10,500 per month to achieve a localized reach and engagement. <p>Monthly Total for TikTok Ad Campaign: PEN 10,500 per month</p> <p>Costs for Fairs</p> <ol style="list-style-type: none"> Banners and Promotional Materials: <ul style="list-style-type: none"> • Purchase: PEN 2,100 for durable, reusable banners. Chairs and Tables: <ul style="list-style-type: none"> • Purchase: PEN 1,750 for sufficient chairs and tables. <p>Equipment Costs</p> <ol style="list-style-type: none"> Camera and Microphone Setup: <ul style="list-style-type: none"> • Purchase: Approximately PEN 5,250 for a professional-grade camera and microphone setup. <p>Monthly Total for Equipment purchases: PEN 190 per month (considering the equipment is in use for 4 years)</p> <ul style="list-style-type: none"> • Total per Month: PEN 18,390 for the first then PEN 17,865 (considering the equipment is in use for 4 years with 8 events per month.) |
|---|

Note. This solution is an estimated calculation using the most cost efficient option with renting the equipment and using freelancers to manage this project.

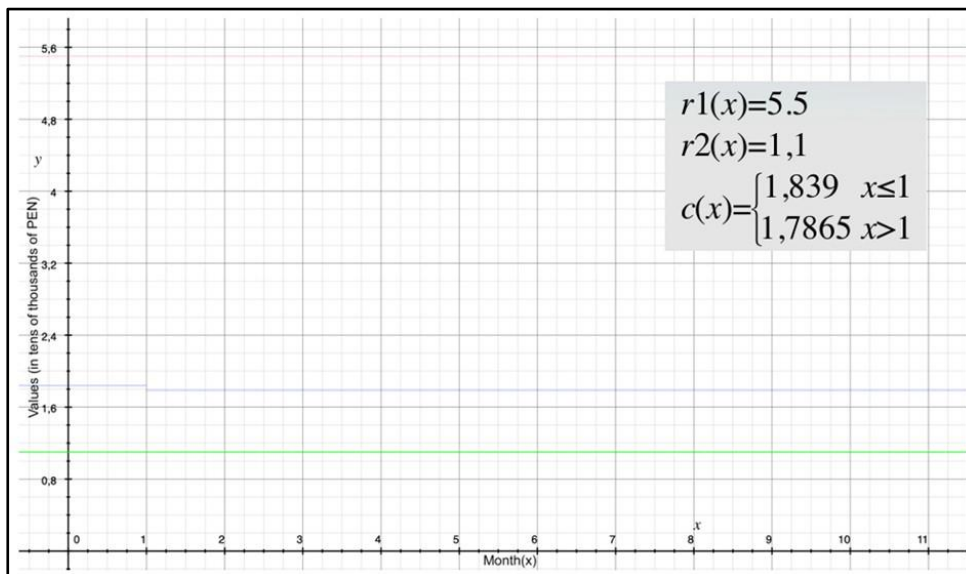
4.2.4 Cost Analysis: Break-even

As illustrated in Figure 15, no break-even point can be calculated because the following three functions do not cross. Sponsorships and subsidies have a minimum value of PEN 11,000 per year and a maximum of PEN 55,000 per year. These functions do not intersect with the calculated expenses of PEN 18,390 for the first month and PEN 17,865 for the remaining months, as both are constant functions. The other function is a piecewise function, which also consists of two constant linear functions, meaning that no intersection occurs. The break-even

point will only be achieved when the total amount of subsidies and sponsorships surpasses the costs.

Figure 15

Break-Even Point Visualisation



Note. This graph was created using a Grapher application on Apple Mac. The red line represents the best scenario according to income streams of subsidies and sponsorings. The green line is the worst scenario according to the income streams. The blue line represents the costs.

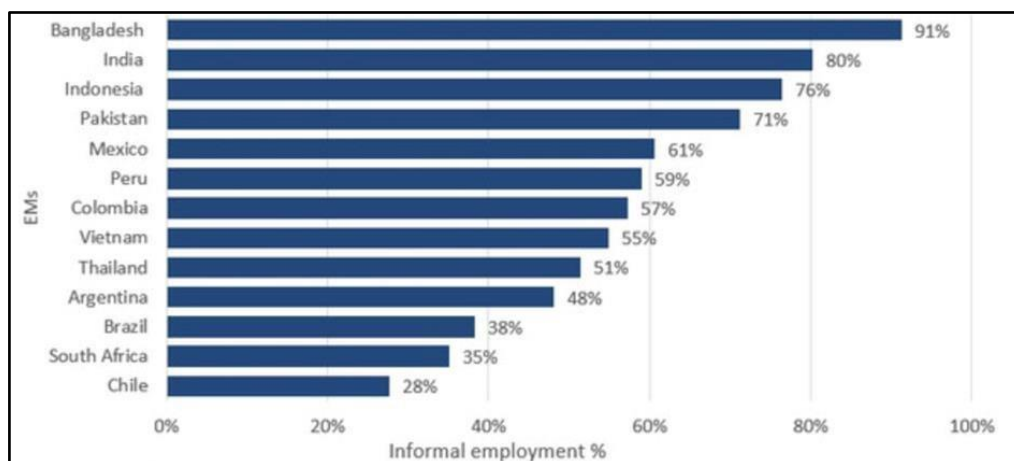
4.3 Scalability

The proposed business model is well-positioned for expansion to other regions within Peru, beyond national borders into other South American countries and emerging markets. This section shows the approach for scaling the model, focusing on leveraging the similarities in user trends and tackling informality in comparable socioeconomic contexts. Social media behaviours in Peru are quite representative of trends within South America and other emerging markets, where increasing smartphone use and internet penetration have created intensive social media engagement (Kemp, 2024). Additionally, as seen in following Figure 16, many

South American countries and other emerging markets are facing significant problems with informality in their labour markets. For example, in Mexico, 61% of the workforce is employed informally, which impacts economic growth and access to social protections (*Informality, Socioeconomic Development, and the COVID-19 Pandemic: Challenges and Opportunities in Emerging Market Economies*, 2020). Additionally, expanding to other places can be easily adapted by adjusting the events to fit each area's needs. Partnering with local governments can be used as a tool for investors.

Figure 16

Percentage of informal employment in EMs (out of the total 100 world ranking)



Note. Retrieved from *Informality, Socioeconomic Development, and the COVID-19 Pandemic: Challenges and opportunities in emerging market economies*. (2020, August 12).

4.3.1 Expansion to Other Municipalities in Lima

The project can start expanding within Lima by targeting other areas like San Juan de Lurigancho, Ate, and Villa El Salvador, which also struggle with informality. By working with local governments and using TikTok, the plan can be adjusted to fit each district's needs. Since

most workers in Peru are informal, this expansion can help many people understand the benefits of formal jobs.

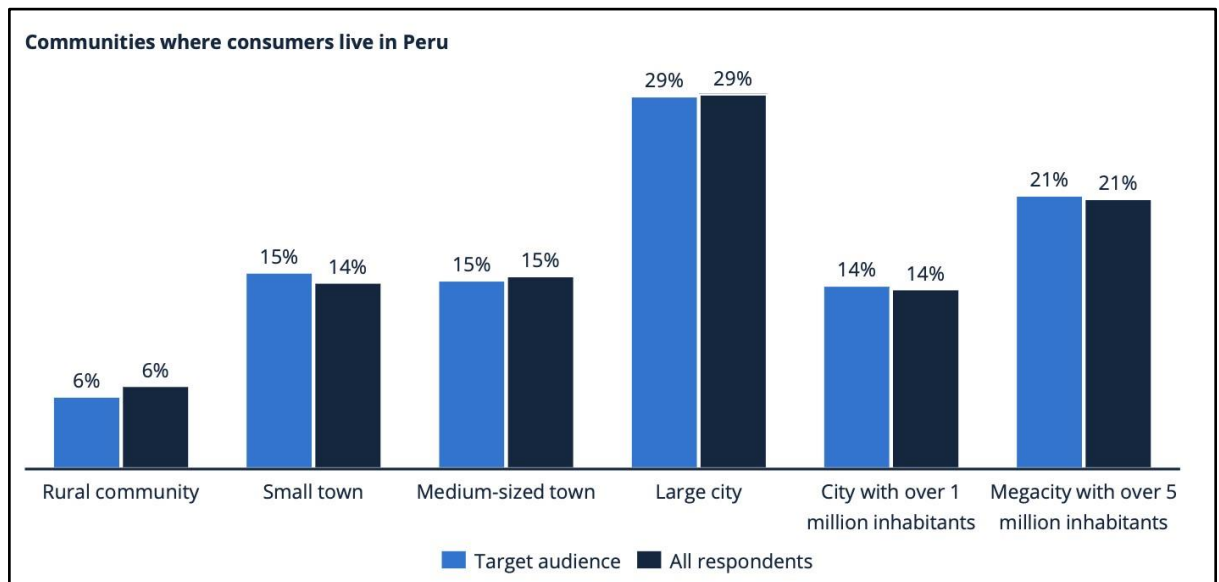
4.3.2 Expansion to Other Cities in Peru

After expanding in Lima, the next step is to bring the model to other big cities. In Peru, cities like Arequipa, Trujillo, and Chiclayo, also have high informality. As seen in Figure 17, TikTok is most relevant for individuals living in large cities with less than one million inhabitants which is applicable to all the above mentioned cities (*Santiago De Surco (District, Lima Metropolitan Area, Peru) - Population Statistics, Charts, Map and Location, n.d.*).

Partnering with local governments and businesses will help make this expansion successful.

Figure 17

Communities where consumers live in Peru



Note. Retrieved from *Web login Service*. (n.d.). <https://de-1statista-1com-1007e9aqa0278.han.uibl.jku.at/statistik/studie/id/145257/dokument/zielgruppe-tiktoknutzerinnen-in-peru/>

4.3.3 Expansion to Other Countries in South America

After success in Peru, the next step is to expand to other South American countries like Bolivia, Colombia, and Ecuador, which also face high informality. These countries have similar cultures and TikTok is popular there, making it a great tool to reach informal workers. By partnering with local governments, the model can be easily adapted to fit each country's needs and help more people access formal jobs.

4.3.4 Expansion to Other Emerging Market Countries

The final step is to expand beyond South America to emerging market countries as seen in Figure 18 like Africa and Southeast Asia, where informality is also a big issue. Countries like India, Indonesia, and Vietnam have many informal workers and are increasingly using platforms like TikTok.

Figure 18

Map showing the MSCI World Index countries



Note. Retrieved from *Emerging market country allocation matters. (n.d.).*

4.4 Social Sustainability

The Sustainable Development Goals (SDGs) were created by the United Nations as part of the 2030 Agenda for Sustainable Development, which was adopted by all UN Member States in 2015. These goals were developed as a universal framework to address a range of global challenges, including poverty, inequality, climate change, environmental degradation, peace, and justice and collectively work together for sustainable development. The main objective was to tackle pressing global issues and ensure a sustainable future for all (*THE 17 GOALS / Sustainable Development, n.d.-b*). As already described in chapter 4.1.11, with this project many of the 17 sustainable development goals are getting tackled either directly or indirectly as seen in Figure 13.

4.4.1 Directly Affected Sustainable Development Goals

As seen in the following Figure 13, the solution addresses SDG 1 (No Poverty) and 2 (Zero Hunger) by transitioning informal workers into formal employment, which then leads to

stable incomes and access to social protections that help reduce poverty. SDG 3 (Good Health and Well-being) is directly improved by providing healthcare benefits through formal employment, which results in better health for workers and their families. SDG 8 (Decent Work and Economic Growth) is vitalized by formal job opportunities and the creation of better labour markets which results in more tax income and therefore more income to the government which leads to economic growth. SDG 10 (Reduced Inequalities) is targeted by reducing income inequality through formal employment. Furthermore, this solution provides legal protections and more equal income distribution, particularly for disadvantaged groups.

4.4.2 Indirectly Affected Sustainable Development Goals

Indirectly, the project contributes to SDG 4 (Quality Education) because of the workshops on knowledge about formal employment which can result in even more workshops. SDG 5 (Gender Equality) is also improving by the fact that women's access to stable employment will be granted. SDG 9 (Industry, Innovation, and Infrastructure) is improving by creating formal business participation, and SDG 16 (Peace, Justice, and Strong Institutions) by expanding compliance and transparency. The solution also indirectly affects SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 15 (Life on Land), as reducing informality enables better tracking and management of pollution and environmental impacts, contributing to more sustainable resource use and environmental protection.

Chapter V: Conclusions

Throughout these three months of study, the problem of labor informality in the district of Santiago de Surco, Lima, has been addressed through the use of the digital platform TikTok with community events to promote the formalization of employment. These were achieved through various sprints, the researchers learned about informality in Surco from the people

living and working in Surco. Through this, they learned to alter their prototype from flyers to electronic advertisements. Also, after a process of qualitative and quantitative research, several important conclusions have been reached.

As a first conclusion, it has been demonstrated that TikTok is an effective tool to reach informal workers in Surco, especially among young adults between 25 and 40 years old who prefer to consume information through digital platforms as shown in Figure 12. Short and attractive advertisements allow for effective dissemination of the benefits of formal employment, such as access to health services, pensions and bank credit. This platform is especially useful in a context where a large part of the informal population seeks to access information quickly and easily, without compromising their privacy. In addition, it has been identified that labor formalization offers multiple benefits for both workers and the community. At the individual level, it improves economic stability and access to fundamental labor rights. At the collective level, formalization increases tax collection, which favors investment in public infrastructure, education and health. Thus, formalization not only contributes to personal well-being, but also to the district's economic development.

Another relevant finding is the need to maintain options for informal workers to access information anonymously, as they express fear of possible sanctions for their current situation. This finding reinforces the importance of implementing mechanisms that allow consultation and access to information without exposing users, something that has been achieved through social media campaigns.

Regarding scalability, the proposed model has demonstrated a high potential for replication. Not only can it be implemented in other municipalities in Lima, but it also has the feasibility to be extended to other cities in Peru where labor informality is a prevalent problem. The model's adaptability to different social and economic contexts makes it a valuable solution

for combating informality in various regions. The project has also proven to be financially sustainable thanks to a balance between government subsidies and private sponsorship. This financial support ensures the long-term viability of awareness campaigns and community events aimed at promoting labor formalization. The efficient use of resources and the hiring of freelancers to reduce costs are also key factors that have contributed to the sustainability of the model.

Finally, the project contributes significantly to the Sustainable Development Goals (SDGs), especially in areas such as poverty reduction, decent work and economic growth, reduction of inequalities, and health and well-being. Indirectly, it also supports quality education and gender equality, as labor formalization particularly benefits women and improves access to education and health services.

Based on these conclusions, several recommendations are suggested. First, it is recommended that partnerships with governmental and private entities be strengthened to ensure the sustainability of the model. These partnerships will not only provide the necessary financial resources, but will also broaden the scope of educational campaigns on the benefits of formalization. In addition, it is recommended that the model be replicated in other districts of Lima with high rates of informality, and subsequently in other cities in Peru.

Another recommendation is to diversify awareness campaigns using multiple digital channels such as WhatsApp and Facebook, in addition to TikTok, to reach a wider audience. It would also be beneficial to customize messages according to the demographic characteristics of each target group, to maximize the impact of the campaigns. Also, it is suggested to implement a continuous monitoring system to evaluate the impact of the campaigns and make the necessary adjustments to improve their effectiveness. Regular follow-up will ensure that the model remains relevant and that its conversion to labor formalization is maximized.

Finally, it would be advisable to explore the possibility of offering additional incentives to workers who decide to formalize, such as tax discounts, access to microcredits or subsidies for the formalization of microenterprises. These incentives could be a key factor in motivating workers to take the step towards formalization.

In summary, this study has shown that the use of digital platforms combined with face-to-face events offers a viable and scalable solution to address the problem of labor informality. The transition to formal employment not only improves the quality of life of workers but also contributes to the economic growth and sustainable development of the district and the country as a whole. The proposed model has the potential to be replicated globally, contributing significantly to the achievement of the Sustainable Development Goals.

References

2020 Report: How Partnerships Accelerate Sustainable Development Goals: A Time for

Transformative Partnerships. (n.d.). World Resources Institute.

<https://www.wri.org/transformative-partnerships/how-partnerships-acceleratesustainable-development-goals>

Admin, O. (2022, November 15). Government support and international loans help develop niche sectors in Peru - Peru 2017 - Oxford Business Group. Oxford Business Group.

<https://oxfordbusinessgroup.com/reports/peru/2017-report/economy/unlockingpotential-government-support-and-international-loans-help-to-further-develop-nichesectors>

Asociación de AFP. (2024, August 29). Inicio - Asociación de AFP. Asociación De AFP. <https://www.asociacionafp.pe/>

Aurazo, J., & Gasmi, F. (2022). Labor Informality and Financial Inclusion

Transitions: Evidence from Peru [TSE Working Papers, Toulouse School of Economics].

https://www.tsefr.eu/sites/default/files/TSE/documents/doc/wp/2022/wp_tse_1349.pdf

Banco de Crédito del Perú | ViaBCP. (n.d.). BCP. <https://www.viabcp.com/> Berry,

S. (n.d.). How much does social media advertising cost in 2024? WebFX.

<https://www.webfx.com/social-media/pricing/how-much-does-social-mediaadvertising-cost/>

Butschek, S., Amor, R. G., Kampkötter, P., & Sliwka, D. (2022). Motivating gig workers – evidence from a field experiment. *Labour Economics*, 75, 102105.

<https://doi.org/10.1016/j.labeco.2021.102105>

Chung, S., Shin, D., & Park, J. (2022). Predicting firm market performance using the social media promoter score. *Marketing Letters*, 33(4), 545–561.

<https://doi.org/10.1007/s11002-022-09615-w>

DataReportal. (2024). Digital 2024: Peru. DataReportal.

<https://datareportal.com/reports/digital-2024peru#:~:text=TikTok%20users%20in%20Peru%20in,at%20the%20start%20of%202024>

Della Rocca, M. (2017, July 19). The rising advantage of public-private partnerships.

McKinsey & Company. <https://www.mckinsey.com/industries/private-capital/ourinsights/the-rising-advantage-of-public-private-partnerships>

Emerging market country allocation matters. (n.d.). MSCI.

El Peruano. (2023, September 8). Labor informality dropped to 71.9% and will continue to decrease in 2024. <https://www.elperuano.pe/noticia/232515-informalidad-laboralbajo-a-719-y-seguira-disminuyendo-en-el-2024>

- Espejo, A. (2022). Labor informality in Latin America: Methodological proposal for its identification at the subnational level. Economic Commission for Latin America and the Caribbean (ECLAC).
- Flores-Mamani, Emilio & Rodríguez-Huamaní, Rolando & Flores-Yapuchura, Ányela & Mamani, Paola & Ticona, Jorge & Apaza-Chino, Julián & Paredes, Alcides. (2024). The Advertising on Tiktok and The Attitude of University Consumers in Peru. *International Journal of Religion*. 5. 4720-4731. 10.61707/j4eaha33.
- fundsforNGOs. (n.d.). Latest grants and resources in Peru - FundsforNGOs. fundsforNGOs - Grants and Resources for Sustainability. <https://www2.fundsforngos.org/tag/peru/>
- HKTDC Research. (n.d.). <https://research.hktdc.com/en/article/NjY0NzA0MDY0>
- Informality, Socioeconomic Development, and the COVID-19 Pandemic: Challenges and opportunities in emerging market economies. (2020, August 12). Cornell University research. Retrieved August 10, 2024, from <https://www.johnson.cornell.edu/article/2020/08/socioeconomic-covid-19-challenges/>
- Kamichi Miyashiro, M. J. (2023). *The reality of informality in Peru before its bicentennial*. *Desde el Sur*, 15(1), e0013. Epub January 00, 2023. <https://dx.doi.org/10.21142/des-1501-2023-0013>
- Kemp, S. (2024, February 23). Digital 2024: Peru — DataReportal – Global Digital Insights. DataReportal – Global Digital Insights. <https://datareportal.com/reports/digital-2024peru>
- Kingdom Digital. (2022). *This is why people don't skip TikTok ads*. Kingdom Digital. <https://www.kingdomdigital.com.sg/this-is-why-people-dont-skip-tiktok-ads>
- Lazo, J. (2024, July 24). Second project meeting [Zoom meeting]. https://www.youtube.com/watch?v=oLIT8Jphb4Q&ab_channel=MiguelMamani

- Loayza, N. (2016). Causes and consequences of informality in Peru. *Economic Studies Journal*, 15, 43-71. Central Reserve Bank of Peru.
<https://www.bcrp.gob.pe/docs/Publicaciones/Revista-Estudios-Economicos/15/Estudios-Economicos-15-3.pdf>
- Miller, N. (2023, September 22). How much does it cost to hire a headhunter? (Updated prices). How Much Does It Cost? <https://howmuchdoesitcost.io/hire-a-headhunter/>
- Ministerio de Trabajo y Promoción del Empleo. (2023). *Situación del empleo formal e informal en Lima Metropolitana, 2022*. Red de Observatorios Socioeconómicos Laborales, OSEL Lima Metropolitana.
https://cdn.www.gob.pe/uploads/document/file/5640876/4996024boletin_situacion_empleo_formal_compressed.pdf
- Molland, S. (2021). Scalability, social media and migrant assistance: emulation or contestation? *Ethnos*, 89(1), 100–117.
<https://doi.org/10.1080/00141844.2021.1978520>
- Nyembe, A. (2024, July 4). Is your TikTok CTR good enough? Answer inside. Madgicx. <https://madgicx.com/blog/what-is-a-good-ctr-for-tiktokads#:~:text=Click%2Dthrough%20rates%20differ%20based,plan%20your%20campaign%20budgets%20effectively.>
- Oficina de Normalización Previsional - ONP. (n.d.). Plataforma Del Estado Peruano.
<https://www.gob.pe/onp>
- Ortbal, K., Frazzette, N., & Mehta, K. (2016). *Stakeholder journey mapping: An educational tool for social entrepreneurs*. *Procedia Engineering*, 159, 249–258.
<https://doi.org/10.1016/j.proeng.2016.08.170>
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation : a handbook for visionaries, game changers, and challengers*.

<https://academicjournals.org/journal/AJBM/article-full-text-pdf/BA71B6427744.pdf>

Santiago de Surco (District, Lima Metropolitan Area, Peru) - Population Statistics, Charts, Map and Location. (n.d.).

https://www.citypopulation.de/en/peru/limametro/150140__santiago_de_surco/

Santiago de Surco en el departamento de Lima - Municipio y municipalidad de Perú. (n.d.). <https://www.distrito.pe/distrito-santiago-de-surco.html>

Statista. (n.d.). *Social network usage by brand in Peru* [Graph]. Statista. Retrieved September 3, 2024, from <https://www.statista.com/forecasts/1409959/social-networkusage-by-brand-in-peru>

Tables, S. (2021, May 5). How to hire the best freelance event planner | Social Tables. Social Tables. <https://www.socialtables.com/blog/event-planning/hire-freelanceevent-planner/>

Team, B. (2024, March 6). How Much Does It Cost to Hire an Employee in Peru? | Borderless. Borderless AI. <https://blog.hireborderless.com/post/how-much-does-it-cost-to-hire-an-employee-in-peru>

THE 17 GOALS | Sustainable Development. (n.d.-a). <https://sdgs.un.org/goals>

The healthcare landscape in Peru: challenges and progress. (2023, July 7).

medlifemovement.org. Retrieved August 20, 2024, from

<https://www.medlifemovement.org/medlife-stories/the-healthcare-landscape-in-peruchallenges-and-progress/>

TikTok. (n.d.). *Ad review FAQ*. TikTok Ads. <https://ads.tiktok.com/help/article/ad-reviewfaq?lang=en>

TikTok. (n.d.). *Power creative elements*. TikTok Business.

https://ads.tiktok.com/business/creativecenter/quicktok/online/Power_Creative_Elements/pc/en

TimeCamp S.A. (n.d.). Average salary in Peru - Complete guide 2024 - TimeCamp.

<https://www.timecamp.com/average-salary/peru/>

Ugarte, R. (2021, January 15). Conoce a los emprendedores apoyados por Innóvate Perú que recibieron reconocimiento internacional - InnovaSuyu. InnovaSuyu.

<https://innovasuyu.proinnovate.gob.pe/conoce-a-los-emprendedores-apoyados-porinnovate-peru-que-recibieron-reconocimiento-internacional/>

Web login Service. (n.d.). [https://de-1statista-1com-](https://de-1statista-1com-1007e9aqa0278.han.uibl.jku.at/statistik/studie/id/145257/dokument/zielgruppe-tiktoknutzerinnen-in-peru/)

[1007e9aqa0278.han.uibl.jku.at/statistik/studie/id/145257/dokument/zielgruppe-tiktoknutzerinnen-in-peru/](https://de-1statista-1com-1007e9aqa0278.han.uibl.jku.at/statistik/studie/id/145257/dokument/zielgruppe-tiktoknutzerinnen-in-peru/)

World Bank Open Data. (n.d.). World Bank Open Data.

<https://data.worldbank.org/indicator/SP.POP.TOTL?locations=PE>

Appendix Appendix A: Calculation of the Cost-Options

Option 1: Hiring professionals as employees for the municipalidad

1. Event Manager:

- **Annual Salary:** PEN 63,000 (PEN 5,250 x 12 months) – High price above the range
- **Headhunter Fee:** PEN 11,340 (18% of annual salary)

2. Marketing Person:

- **Annual Salary:** PEN 50,400 (PEN 4,200 x 12 months) – Low price of the range
- **Headhunter Fee:** PEN 9,072 (18% of annual salary)

3. Graphic Design Person:

- **Annual Salary:** PEN 42,000 (PEN 3,500 x 12 months) – Slightly above the range
- **Headhunter Fee:** PEN 7,560 (18% of annual salary)

4. Videographer:

- **Annual Salary:** PEN 50,400 (PEN 4,200 x 12 months) – Slightly above the range
- **Headhunter Fee:** PEN 9,072 (18% of annual salary)

5. Municipalidad Staff (2 persons):

- **Annual Salary:** PEN 84,000 (PEN 7,000 x 12 months for two persons)
- **Headhunter Fee:** PEN 15,120 (18% of total annual salary)

6. **Annual Salaries:** PEN 289,800 (total of all salaries per year)

7. **Headhunter Fees:** PEN 52,164

8. **First Year Total Salaries Including Headhunter Fees:** PEN 341,964 = PEN28,497 per month for first year then PEN24,150

Option 2: Freelancing Parties

1. Event Manager:

- **Fee:** Approximately PEN 525 for initial event support

2. Marketing Person:

- **Fee:** About PEN 2,100 per month for ongoing campaigns. – Lower end of range

3. Graphic Design Person:

- **Fee:** Roughly PEN 175 per design-> estimated 5 designs per month = PEN 875. – Lower end of the range

4. Videographer:

- **Fee:** Around PEN 700 per video-> estimated 2 videos per month = PEN 1,400.
– Lower end of the range

5. Municipalidad Support:

- **Fee:** PEN 350 per day-> estimated 8 days per month = PEN 2,800.

Monthly Total for Freelancing: first month PEN 7,700 then PEN 7,175

Costs for TikTok Ad Campaign

- **TikTok Ad Campaign across Municipalidad of Surco:**
 - **Budget:** PEN 10,500 per month to achieve a localized reach and engagement.

Costs for Fairs

1. Banners and Promotional Materials:

- **Purchase:** PEN 2,100 for durable, reusable banners.
- **Rent:** PEN 350 per event for renting similar materials.

2. Chairs and Tables:

- **Purchase:** PEN 1,750 for sufficient chairs and tables.
- **Rent:** PEN 280 per event.

Equipment Costs

1. Camera and Microphone Setup:

- **Purchase:** Approximately PEN 5,250 for a professional-grade camera and microphone setup.
- **Rent:** PEN 525 per event or production day.

Estimated Cost Overview for Option 1 (Permanent Staff and Purchases):

- **Monthly Salaries:** PEN28,497 per month for first year then PEN24,150
- **TikTok Ad Campaign:** PEN 10,500
- **Fairs and Promotional Materials (initial purchase):** PEN 3,850 = PEN 80 per month considering 4-year usage
- **Equipment Purchase:** PEN 5,250 = PEN 109 per month considering 4-year usage
- **Total Initial Month:** First year PEN 39,186 per month (subsequent months would be around PEN 34,839 per month)

Estimated Cost Overview for Option 2 (Freelancers and Rentals):

- **Monthly Freelancing Fees:** first month PEN 7,700 then PEN 7,175
- **TikTok Ad Campaign:** PEN 10,500
- **Fairs and Promotional Materials (rental per month):** PEN 5,040
- **Equipment Rental (assuming 8 events per month):** PEN 4,200
- **Total per Month:** PEN 27,440 for the first then 26.915

Note. Own creation