

# Lean Innovation Canvas: A Business Model to Drive the Growth of SMEs through a Mobile Delivery Application in Jaen, Peru

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**ISSN, ISBN:** (to be inserted by LACCEI).

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## I. INTRODUCTION

The Covid-19 crisis has generated significant changes in consumer behavior, with a growing preference for online shopping and home delivery services. According to an IPSOS study in Peru, 73% of consumers choose to shop online due to the pandemic, and 80% have used home delivery services by 2021 [1]. As a result, SMEs have faced a major challenge due to the decrease in sales through traditional channels, which has had a negative impact on their productive performance, according to the Comex report in 2020 [2]. Therefore, to address this situation, SMEs need to adapt to the new digital channels in order to increase their sales and maintain their competitiveness in the market. To achieve this, a new method called Lean Innovation Canvas is proposed, based on the combination of Lean Startup and Lean Canvas, which allows for the efficient development of new business models, minimizing risks and maximizing opportunities for success. The objective of this research project is to apply the Lean Innovation Canvas method to develop more feasible business models in the market. To accomplish this, a case study will be conducted to develop a new business model for a mobile delivery application that contributes to the growth of SMEs in the city of Jaen.

## II. STATE OF ART

### A. Lean Startup

Lean Startup is a methodology that focuses on experimentation, validated learning, and iterative construction. The goal is to maximize efficiency and minimize the risk of failure through initial hypothesis validation and continuous improvement of the business model [3].

As an initial contribution within the Lean Startup framework, a fusion of Design Thinking and Lean Startup is employed to establish an iterative model enabling entrepreneurs to concentrate on user needs and drive market impact. This distinctive iterative process is founded on the "build, measure, learn" strategy, whereby entrepreneurs formulate hypotheses regarding their business model, develop a Minimum Viable Product (MVP), subject it to market testing, evaluate the outcomes, and gain insights to continuously refine their approach [4]. As a more specific contribution in combination with marketing, the use of Lean Startup methodology combined with Digital Marketing tools was fundamental to promote and increase sales of a butter product at The Butter Factory. The approach was divided into three phases: identification of needs and project scope, development and validation of a Minimum Viable Product (MVP), and production planning, digital tool development, and distribution. This approach allowed for the standardization of new product launch processes, using surveys to validate proposals and obtain feedback from potential customers. The combination of Lean Startup and Digital Marketing provided opportunities for continuous learning and product adaptation, leading to success in promoting and increasing butter product sales [5].

### B. Methodologies for business models

Lean Canvas is a tool that allows for strategic planning and provides a concise and visual approach to creating and validating a business model. It helps visualize the strengths and weaknesses of the project in order to develop strategies for continuous improvement [6]. The advantages and contributions of the Lean Canvas model are highlighted compared to the traditional business plan. A contribution was made by designing a business model for entrepreneurs at the School of Food Industry Engineering (EPIIA). The process started with six steps, including internal and external analysis, SWOT

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analysis, analysis of data on entrepreneurial intent, center design, activity planning, and proposal viability. Subsequently, the Lean Canvas methodology was developed with its nine components: customer segment, problem, unique value proposition, solution, channels, revenue streams, cost structure, key metrics, and competitive advantage. This contributed to a solid business plan for the entrepreneurial business model [7]. Lastly, a proposal for the development and implementation of the Value Proposition Canvas was presented to generate a solid and effective value proposition at the Cipura Culinary State University. Surveys were conducted to understand the students' preferences, and the Value Proposition Canvas tool was used to develop a solid proposal that allowed the university to provide a better experience for the students. This proposal consists of a new standardized learning system, with 60% being in-person and 40% online with interactive material [8].

### C. Successful Cases in Delivery Applications

One success case is the proposal of a mobile application for the company Alfa Fresh, which allows workers to see the shortest route for order delivery. The process begins with analyzing the company to understand the reasons for delivery delays. After that, the design of the application is developed to have a user-friendly interface for the workers. The software is then developed using Visual Basic programming language, and pilot tests are conducted to identify possible improvements. These improvements are implemented, and the final version of the application allows workers to be more efficient in delivering orders [9]. Another contribution is the design and development of a user-centered food delivery application. The application improves the company's efficiency and customer satisfaction. To successfully develop a business model for a food delivery application, it is necessary to consider a good market strategy, define the target customer correctly, have a unique value proposition, and implement a solid social media marketing strategy, including creating pages and consistently

generating content [10]. In terms of a social application contribution, a company called Too Good To Go quickly positioned itself in the market with the use of its mobile application. This business follows a social model that has had a high impact to this day. The design of the application was developed using programming language software, and it allows businesses to sell their surplus food to reduce waste and contribute to environmental care [11].

In the methodologies and tools such as Lean Startup and Lean Canvas have proven to be effective in creating and validating business models, as well as continuously improving them. These methodologies allow entrepreneurs and companies to focus on customer needs, experiment, and learn iteratively, minimizing risks and maximizing efficiency. In the field of business models, the use of Lean Canvas has shown to be a strategic tool that visualizes the strengths and weaknesses of a project, enabling a more concise and visual approach compared to traditional business plans. This facilitates strategic planning and identifies areas for continuous improvement. In the context of delivery applications, successful cases demonstrate how the design and development of mobile apps can improve operational efficiency, customer satisfaction, and contribute to waste reduction. Incorporating solid marketing strategies and a user-centered approach are crucial for the success of these business models.

### III. CONTRIBUTION

The Lean Innovation Canvas is grounded in the Lean Startup approach [4], which provides an iterative model for startups to focus on user needs and have an impact in the market. This iterative process is based on the "create, measure, learn" strategy, in which entrepreneurs generate hypotheses about their business model, create a Minimum Viable Product

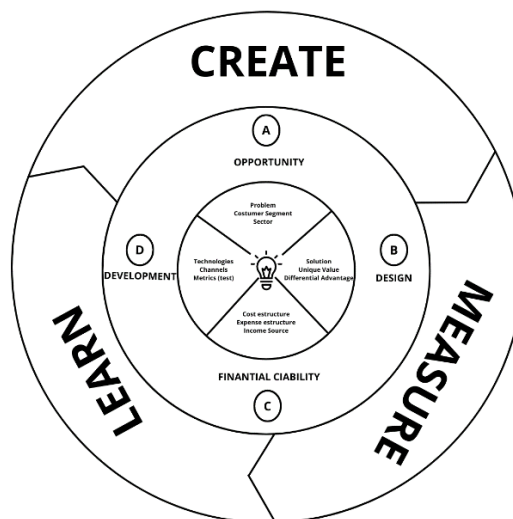


Fig. 1 Lean innovation canvas method

(MVP), and test it in the market. They then measure the results obtained and learn from them to make continuous adjustments and improvements. This Lean Startup methodology allows for minimizing resource waste by focusing on idea validation and satisfying real customer needs [4]. Additionally, the Lean Canvas model provides a visual and sequential tool consisting of nine modules [7]. These modules include aspects such as customer segments, problems to solve, unique value proposition, solution, distribution channels, revenue streams, cost structure, key metrics, and competitive advantage. This methodology enables entrepreneurs to describe, evaluate, and adjust their business model in an agile manner. By using the Lean Canvas, project strengths and weaknesses can be quickly identified, appropriate strategies can be adopted, and a better understanding of the target market can be achieved [7].

Its main idea is to provide entrepreneurs and companies with a structured framework that enables them to generate, validate, and develop business ideas in an agile and efficient manner. The motivation behind the method lies in addressing the inherent challenges of launching new products or services to the market. To reduce the slowness and high costs associated with this process, the method focuses on rapid prototyping, early validation, and continuous customer feedback.

Based on the Lean Startup and Lean Canvas methodologies, the Lean Innovation Canvas is derived from the combination of both approaches, as depicted in Figure 1.

**Create:** In the create phase, our focus is on identifying the key problems faced by customers that need to be solved. We define the target customer segment to whom we will provide a valuable solution for their problems and determine the market or sector in which our business will operate as a response to these challenges. Additionally, in this stage, we aim to design a solution that effectively addresses these identified problems with a unique and differentiated value proposition.

**Measure:** In the measure phase, we present a detailed value proposition that addresses the identified problems. However, it is not enough to have a well-designed solution; we also need to measure its validity and economic viability. In this regard, measurement focuses on evaluating the acceptance and potential demand of the solution in the target market. Moreover, a financial viability analysis is conducted to measure the profitability and economic sustainability of the proposed business. This involves assessing the costs associated with the development and implementation of the solution, as well as the expected revenues and strategies to achieve profitability. Lean Canvas has proven to be a valuable tool for strategic planning and business model creation. Its visual and concise approach allows for a quick identification of project strengths and weaknesses, facilitating the adoption of appropriate strategies. Furthermore, its focus on customer understanding, problem-solving, and continuous adaptation

makes it a preferred choice for entrepreneurs compared to traditional business plan approaches.

**Learn:** The learning phase occurs throughout the entire process but is particularly emphasized in the stages of financial viability and development. In the financial viability stage, in addition to measuring the validation of the solution, we evaluate whether the business model is economically viable. This entails conducting a detailed analysis of projected costs, expenses, and revenues and using this data to assess the profitability and economic feasibility of the business. In the development stage, the Minimum Viable Product (MVP) is built and launched to gather feedback from customers. Through this interaction with customers, we learn about the strengths and weaknesses of the solution, identify improvement opportunities, and refine the business model based on the results and insights gained.

The Lean Innovation Canvas stands out for its agile and customer-centered approach, enabling rapid adaptation to changing market needs and fostering experimentation and continuous learning. This approach significantly reduces the risks associated with new business development by providing early customer feedback and allowing adjustments before investing significant resources.

A. OPPORTUNITY	B. SOLUTION DESIGN	C. FINANCIAL VIABILITY	D. DEVELOPMENT
<b>Problem</b> List the main problems of your client.  <b>1</b>	<b>Solution</b> Explain your value proposition.  <b>4</b>	<b>Cost structure</b> Describe your business idea costs.  <b>7</b>	<b>Technologies</b> List the technologies to be used for the development MVP.  <b>10</b>
<b>Customer segment</b> Describe your potential client.  <b>2</b>	<b>Unique value</b> Create your own unique advantage in the market.  <b>5</b>	<b>Expense structure</b> Describe your potential client.  <b>8</b>	<b>Channels</b> Mention your distribution channels for MVP.  <b>11</b>
<b>Sector</b> Describe your solution sector.  <b>3</b>	<b>Differential advantage</b> Generate differential generic strategies.  <b>6</b>	<b>Income source</b> Describe your sources of income for the business.  <b>9</b>	<b>Metrics (Test)</b> Generate data to validate your idea.  <b>12</b>
CREATE		MEASURE	
		LEARNING	

Fig. 2 Explanation of the lean innovation canvas process

A. Opportunity

- Problems:** The focus is on identifying the key problems of the customer that need to be solved. To achieve this, validation tools will be used: Customer interviews, experiment board surveys, qualitative data analysis.
- Customer segment:** Defines the specific customer segment to which a valuable solution will be provided for their problems. To achieve this, validation tools

will be used: Empathy map, customer interviews and direct observation.

3. *Sector*: Determines the market or industry in which the business will operate as a response to those challenges. To achieve this, validation tools will be used: Industry Analysis and Market Research.

#### B. Design Solution

1. *Solution*: Presents a detailed value proposition to address the identified customer problems. To achieve this, validation tools will be used: Experiment Board and Value Proposition Canvas.
2. *Unique value*: Aims to generate a unique advantage in the market and develop differentiation strategies for consistent positioning. To achieve this, validation tools will be used: Unique Value Proposition Canvas and Differentiation Strategy Matrix.
3. *Differential advantage*: Develops distinctive strategies that allow standing out from the competition. To achieve this, validation tools will be used: Competitive Advantage Canvas, SWOT Analysis and Competency Profile Matrix.

#### C. Financial Viability

1. *Cost structure*: Identifies both the cost structure and expenses required for the development and implementation of the proposed business. To achieve this, validation tools will be used: Cost Structure Canvas and Business Model Canvas.
2. *Expense structure*: Describes the expenses necessary for the operation of the business in terms of operations and administration. To achieve this, validation tools will be used: Expense Structure Canvas, Profit and Loss Statement and Business Model Canvas.
3. *Revenue*: Describes the income sources that will ensure the long-term sustainability of the business. To achieve this, validation tools will be used: Revenue Streams Canvas and Pricing Strategy.

#### D. Development

1. *Technologies*: Details the specific technologies that will be used to create the Minimum Viable Product (MVP). To achieve this, validation tools will be used: MVP Development, Programming languages and UX/UI design platforms.
2. *Channels*: Identifies the distribution channels that will be used to reach customers and promote the business. To achieve this, validation tools will be used: Marketing, Sales Strategy, MVP testing platforms and Apps Stores.

3. *Validation metrics*: Develops test metrics that will measure the initial results of the MVP and facilitate continuous improvements. To achieve this, validation tools will be used: Metrics Dashboard, Lean Analytics Framework and Sales Matrix.

By applying the entire method, it provides a comprehensive and systematic approach to developing a successful business. Each stage complements the next, ensuring that all necessary aspects are considered to maximize opportunities, meet customer needs, and ensure long-term viability.

#### IV. VALIDATION: IMPLEMENTATION AND EVALUATION

To validate the effectiveness of the Lean Innovation Canvas method, we will conduct a case study focused on developing a business model for a mobile delivery application targeting small and medium businesses (SMEs) in the city of Jaén, Peru. The aim of this solution is to drive the growth of SMEs and address the challenges they face in the local commercial market. By utilizing the Lean Innovation Canvas, we will seek to design an agile and customer-centric solution that enables SMEs to quickly adapt to changing consumer needs. Through prototyping, early validation, and continuous customer feedback, we expect to reduce the risks associated with new business development and enhance the chances of success in the delivery sector. The case study will serve as a tangible proof of the applicability and effectiveness of the method.

##### A. Opportunity

1. *Problems*: After surveying 30 SMEs and conducting 8 interviews with representatives of these companies, the market study in the city of Jaén revealed a series of challenges faced by these SMEs. These challenges include lack of technological know-how, logistical limitations, and the need to adapt to customer needs. These factors represent obstacles to the growth and business development of SMEs in the local market. To validate the identified problem, the Experiment Board tool was used, which involved interviewing 8 representatives of SMEs. The results of these interviews confirmed that 6 of the 8 representatives mentioned that they face problems of low sales in the city of Jaén due to the lack of a digital channel to make sales and the lack of transportation to deliver to customers. These findings support the need to find solutions to address these issues, such as the development of a digital sales channel and the implementation of a delivery service. In this way, SMEs could overcome the identified obstacles and improve their growth and development in the local Jaén market.



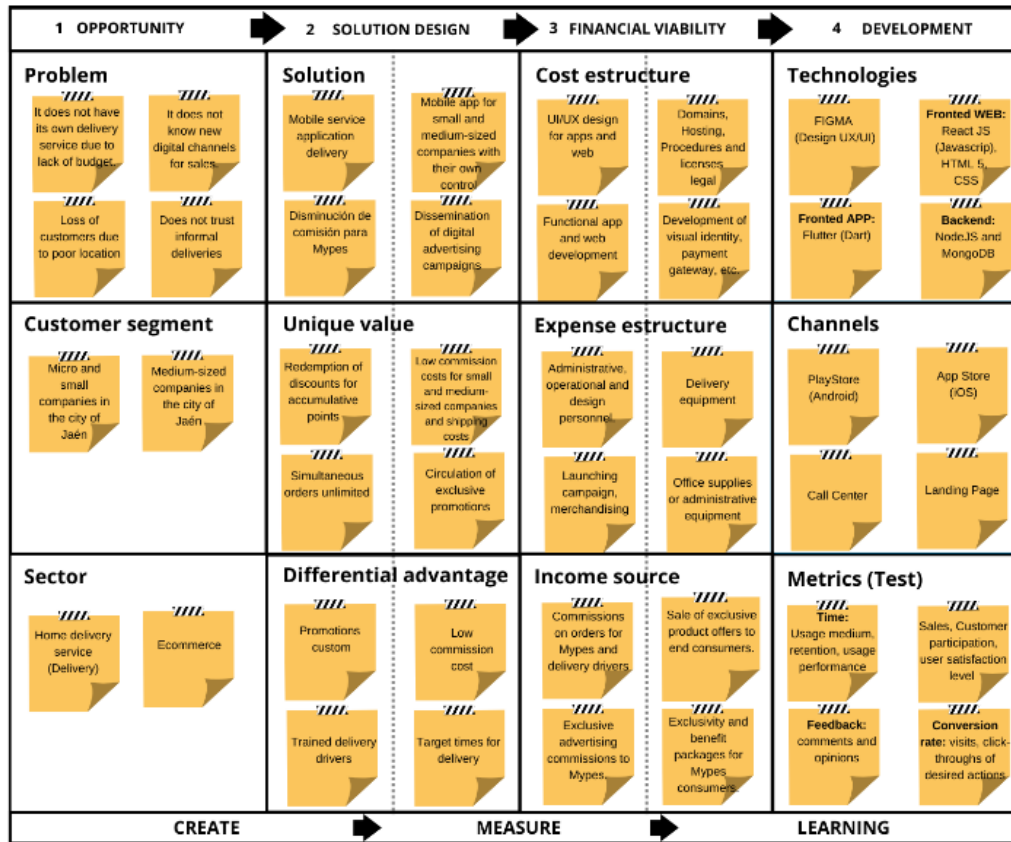


Fig. 3 Application of the lean innovation canvas

2. *Customer segment:* In the market study, micro, small and medium-sized companies that commercialize prepared food in the city of Jaén were segmented.
3. *Sector:* It will be developed in the delivery service and e-commerce sectors. These sectors are relevant to MSMEs in the prepared food industry as they will enable them to expand their reach and offer their products more efficiently through a digital sales channel and home delivery service.

#### B. Solution Design

1. *Solution:* After conducting the validation using the Experiment Board tool with 6 to 8 representatives of SMEs, it was determined that it is feasible to consider the development of a mobile application for home delivery service. The proposed solution consists of creating an application that includes different modules for SMEs and delivery companies, with the objective of improving logistical control, reducing commissions, promoting advertising campaigns and offering exclusive benefits to end consumers.
2. *Unique value:* it is based on the creation of a discount redemption system for accumulative points, unlimited simultaneous orders, low commission and shipping

costs, wide delivery service coverage and exclusive promotions. These features differentiate the mobile application from other options in the market and provide a personalized experience in the purchase process.

3. *Differential advantage:* This is the one that mentions our difference in the market and allows us to position ourselves as we offer low commission costs for small and medium-sized companies, discount exchanges for accumulative points, low shipping costs, wide delivery service coverage, circulation of exclusive promotions, personalization in the purchase process.

#### C. Financial Viability

1. *Cost structure:* The costs that will be incurred to carry out the development of this business are UI/UX, app and web design, equipment for delivery drivers, affiliation and payment method installations, administrative staff, advertising and launch campaign, legal advice, branding or virtual system development, paperwork and licensing, payment gateway and office supplies or administrative equipment.
2. *Expense structure:* Administrative, operational and design personnel are considered as part of the

expenses. Also equipment for delivery personnel (backpacks, polo shirts, etc.), the launching campaign with merchandising and office supplies (administrative equipment).

3. *Income*: In order to make the business viable, income will come from commissions per order for SMEs, commissions per order for distributors, sale of exclusive product offers to end consumers, commission on exclusive advertising to SMEs, and exclusivity and benefits packages for SMEs consumers.

#### D. Development

1. *Technologies*: These are tools that help to develop the digital MVP, in this case we will use FIGMA to make the designs at UI/UX level, in addition to the use of Java script language, CSS, html for web and app front-end we will use React JS, Dart, and backend NodeJs and MangoDB. After developing the MVP visualized in figure 2, a survey was conducted to 30 Mypes representatives for validation. The proposed App Delivery MVP for SMEs was well accepted, with 80% satisfied with the design, 65% very satisfied with the App experience, and 80% believing it would be used by customers. In addition, 55% would use it daily and 90% would be willing to use it. The main advantages identified are the greater reach to customers, ease of use and the ability to offer meals and apparel. The preferred means of payment are payment applications and bank transfer. In summary, the results reflect a favorable reception and willingness to use the App SMEs proposed by the surveyed SMEs, as depicted in Figure 4.
2. *Channels*: These are the ones that will be used to offer and publicize this business that is proposed as a solution to the problems of the SMEs in Jaén. For this case, App Store (IOS) and Play Store (Android), call

page are considered.

3. *Metrics*: In measuring the validation regarding the success of the proposed solution, a commitment contract was made with the SMEs to use it and consider its effectiveness in growing their sales. We were able to gather 22 representatives who committed to using the App delivery solution, as shown in Table 1. Additionally, provides the validation of sales using the delivery application for SMEs, where the sales and the complete process of each order are evident. With this, we were able to contribute to an increase in sales for the SMEs, this in Table 2.

TABLE I  
AFFILIATION OF MSMES WITH A DELIVERY APP

Name SMEs	ID	Category	Seccion	City	Validation
Doña Rina	10468639608	Comida	Cafeteria	Jaén	<a href="#">Contrato Legal 1</a>
Artesano	20608904281	Comida	Comida	Jaén	<a href="#">Contrato Legal 2</a>
6:30	20607246328	Comida	Vegetariana	Jaén	<a href="#">Contrato Legal 3</a>
Amojú	20600815572	Comida	Cafeteria	Jaén	<a href="#">Contrato Legal 4</a>
Peruandino	20487859487	Comida	Restaurante	Jaén	<a href="#">Contrato Legal 5</a>
Totta's Pizza	10180910943	Comida	Cafeteria	Jaén	<a href="#">Contrato Legal 6</a>
Yuyin's Pizza	10276709149	Comida	Pizzas	Jaén	<a href="#">Contrato Legal 7</a>
Finca Roja	10096283712	Comida	Chifas	Jaén	<a href="#">Contrato Legal 8</a>
El asador Jaén	20607420654	Comida	Cafeterías	Jaén	<a href="#">Contrato Legal 9</a>
Rocoto Marino	20603439041	Comida	Grill	Jaén	<a href="#">Contrato Legal 10</a>
Las Esteras	10276683859	Comida	Cevichería	Jaén	<a href="#">Contrato Legal 11</a>
Warmi Café	20600300081	Comida	Grill	Jaén	<a href="#">Contrato Legal 12</a>
Esquina 51	10108039189	Comida	Café	Jaén	<a href="#">Contrato Legal 13</a>
Cucharas Bravas	10108039189	Comida	Grill	Jaén	<a href="#">Contrato Legal 14</a>
Barker Jaén	20603066538	Mascotas	Cevichería	Jaén	<a href="#">Contrato Legal 15</a>
Rinconcito Jaeno	20411259855	Comida	Comidas y accesorios	Jaén	<a href="#">Contrato Legal 16</a>
DLiyiz Repostería	10336495674	Comida	Regional	Jaén	<a href="#">Contrato Legal 17</a>
MOI Restobar	20604511462	Comida	Repostería	Jaén	<a href="#">Contrato Legal 18</a>
Pepe Rivera	10700396661	Comida	Regional y criollos	Jaén	<a href="#">Contrato Legal 19</a>
ChokoBarrio	10732165725	Comida	Marisquería	Jaén	<a href="#">Contrato Legal 20</a>
MyFinka	20603424566	Comida	Cafeteria	Jaén	<a href="#">Contrato Legal 21</a>
Aula Virtual	10277120203	Librería	Cafeteria	Jaén	<a href="#">Contrato Legal 22</a>

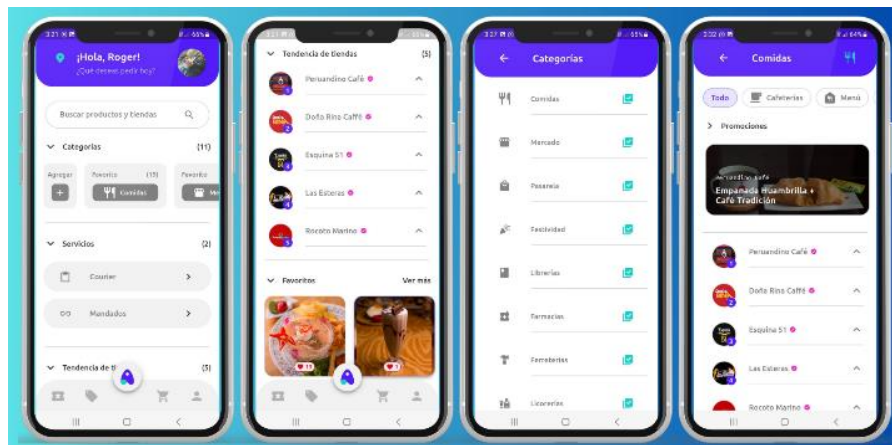


Fig. 4 MVP Proposal Delivery App

TABLE II  
SALES VALIDATION IN SMES

Name SMES	Orders	Sales	Commission earned	Settlement or payout
Amojón	10	S/ 320.00	S/ 43.10	S/ 276.90
Artosano	12	S/ 355.80	S/ 53.37	S/ 302.43
Choko Barrio	24	S/ 150.00	S/ 22.50	S/ 127.50
Cucharas Bravas	5	S/ 252.00	S/ 21.00	S/ 231.00
Doña Rina	62	S/ 1,438.00	S/ 172.56	S/ 1,265.44
El Asador	10	S/ 376.00	S/ 45.12	S/ 330.88
Esquina 51	86	S/ 2,914.00	S/ 369.40	S/ 2,544.60
Finca Roja	5	S/ 117.00	S/ 11.70	S/ 105.30
Las Esteras	105	S/ 2,934.00	S/ 352.08	S/ 2,581.92
My Finka	2	S/ 84.00	S/ 8.40	S/ 75.60
Navke market	30	S/ 1,988.00	S/ 1,988.00	S/ 1,988.00
Peruandino	80	S/ 1,616.20	S/ 161.62	S/ 1,454.58
Rinconcitos	6	S/ 184.00	S/ 22.08	S/ 161.92
Rocoto Marino	50	S/ 1,799.50	S/ 215.94	S/ 1,583.56
Totta's	20	S/ 590.10	S/ 84.18	S/ 505.92
Warmi Café	5	S/ 189.00	S/ 18.90	S/ 170.10
Yuyin's	8	S/ 96.50	S/ 14.48	S/ 82.03
<b>Total</b>	<b>490</b>	<b>S/ 15,404.10</b>	<b>S/ 3,604.43</b>	<b>S/ 13,787.68</b>

TABLE III  
VALIDATION STATISTICS BY SALES DATA IN SMES

Name SMES	Orders	Goal Sales	Sales	Compliance%
Amojón	10	S/150.00	S/320.00	213%
Artosano	12	S/150.00	S/355.80	237%
Choko Barrio	24	S/150.00	S/150.00	100%
Cucharas Bravas	5	S/150.00	S/252.00	168%
Doña Rina	62	S/150.00	S/1,438.00	959%
El Asador	10	S/150.00	S/376.00	251%
Esquina 51	86	S/150.00	S/2,914.00	1943%
Finca Roja	5	S/150.00	S/117.00	78%
Las Esteras	105	S/150.00	S/2,934.00	1956%
My Finka	2	S/150.00	S/84.00	56%
Navke market	30	S/150.00	S/1,988.00	1325%
Peruandino	80	S/150.00	S/1,616.20	1077%
Rinconcitos	6	S/150.00	S/184.00	123%
Rocoto Marino	50	S/150.00	S/1,799.50	1200%
Totta's	20	S/150.00	S/590.10	393%
Warmi Café	5	S/150.00	S/189.00	126%
Yuyin's	8	S/150.00	S/96.50	64%
Total	490	S/2,550.00	S/15,404.10	604%

## Analysis of results

It has been demonstrated that affiliating SMEs to the delivery app generated by the LIC model, as shown in Table 1, has helped amplify the impact of the business model idea. From this, it can be analyzed that more than 30 businesses were confirmed affiliates with contracts for the real implementation trial of the delivery app, allowing us to visualize the sales data of the affiliated businesses. This confirms the validation that applying the LIC generates effective business models. Next, we will present the sales generated by these affiliated SMEs.

The detailed investigation into the application of the Lean Innovation Canvas (LIC) to develop a business model for a delivery application tailored for SMEs provides a solid foundation of quantitative evidence supporting its effectiveness in driving sales growth, especially in the context of startups and emerging businesses. The specific findings presented in Table 2 are particularly impressive: the participating SMEs generated a total of 490 orders, resulting in remarkable sales of S/15,404.10 and a net profit of S/13,787.68 once commissions were accounted for. These robust financial data, strongly supported by the case study, compellingly validate the potential of the LIC as a key enabler for boosting the commercial

performance of SMEs, potentially leading to substantial increases in sales and profits for these businesses in the ever-dynamic and competitive business world. The analysis of total figures from Table III reveals that the app delivery service has significantly exceeded sales expectations, with total sales reaching S/15,404.10, surpassing the set goal of S/2,550.00 by 604%. This highlights the substantial impact and effectiveness of the service in driving sales growth for affiliated SMEs. This analysis reveals several key insights:

**Sales Performance:** The total sales significantly exceed the total goal sales, indicating robust performance by the affiliated SMEs. This suggests that the app delivery service has effectively stimulated sales growth and revenue generation for the participating businesses.

**Completion Percentage:** The total completed percentage of 604% indicates that, on average, the SMEs achieved more than six times their set sales targets. This reflects the substantial success of the app delivery model in driving sales and exceeding expectations.

**Impact and Effectiveness:** The considerable gap between the total goal sales and the total sales achieved underscores the positive impact and effectiveness of the app delivery service. It demonstrates the ability of the service to not only meet but also surpass the sales goals of affiliated SMEs, contributing to their overall growth and success.

Furthermore, it is crucial to highlight that these results go beyond mere financial figures. They translate into a real impact on the operations and viability of SMEs by enhancing their ability to meet the growing demand for delivery of products and services in an environment where digital commerce and logistics play an increasingly significant role. The fact that these businesses have been able to successfully adapt to this constantly changing environment demonstrates that the LIC is not just a theory but a practical tool for business growth. The combination of solid quantitative data with real operational impact underscores the relevance and value of this methodology in today's business world, where agility and adaptability are essential for survival and growth.

## Practical examples with LIC

Two practical examples have been developed and will be formulated below to show how the LIC method is implemented in other items.

### Fitness application

#### A. Opportunity

1. **Problems:** In researching the market in the province of Lima, Peru, we identified a significant problem: many people want to be active outdoors, but face a lack of access to specialized equipment and adequate training.
2. **Customer segment:** We focus on young adults and active adults, ages 18 to 45, as our primary customer



segment, who are looking for opportunities to exercise outdoors and improve their health and well-being.

3. *Sector:* In this regard, we are targeting the outdoor fitness and personalized training sector.

#### B. Solution Design

4. *Solution:* To address this need, we propose "FitWay", a mobile application focused on outdoor training that will offer a variety of functional training routines, such as pull-up bars and balance exercises.
5. *Unique value:* FitWay will offer live and recorded outdoor exercise routines designed for functional and personalized workouts (B.5). Our certified trainers will provide support through the application, including dietary advice.
6. *Differential advantage:* We will differentiate ourselves by offering high quality equipment, certified trainers and an environment that promotes a healthy and active lifestyle.

#### C. Financial Viability

4. *Cost structure:* In terms of cost structure, we contemplate the development of the mobile application, salaries of certified trainers, marketing and advertising, as well as administrative expenses.
5. *Expense structure:* Expenditures will include staff salaries, equipment maintenance and repair costs, park advertising and promotion, and office and administrative expenses.
6. *Income:* On the other hand, revenues will come from monthly or annual memberships, group classes and specialized training, fitness events and competitions, and sales of fitness-related products.

#### D. Development

1. *Technologies:* In terms of technological development, we envisage the development of a mobile application for access to classes and training tips, the implementation of an online booking system for personalized training sessions, and the use of activity tracking technology to monitor clients' progress.
2. *Channels:* We consider the App Store and Play Store, social media advertising and a website as channels of diffusion.
3. *Metrics:* To measure the success of the project, we will track metrics such as app downloads, satisfaction surveys, product and membership sales, and social media interactions.

### Virtual restaurant

#### A. Opportunity

1. *Problems:* After researching the local market, we found that many people who work in offices near the city center have difficulty finding quick and healthy lunchtime food options. They are often forced to opt for unhealthy options due to lack of time and variety.
2. *Customer segment:* We target busy professionals working in offices in the city of Lima who are looking for quick and healthy lunch options.
3. *Sector:* We will focus on the healthy food sector for lunch.

#### B. Solution Design

4. *Solution:* We propose to open a virtual healthy fast-food restaurant in the city center. Through a website, a variety of healthy fast-food options will be offered.
5. *Unique value:* Our value proposition lies in offering healthy food that is as convenient as traditional fast food. We will focus on freshness, quality and speed of service.
6. *Differential advantage:* We will differentiate ourselves in the market by offering a varied menu that includes options for different diets and food preferences, such as vegetarian, vegan, gluten-free, etc.

#### C. Financial Viability

7. *Cost structure:* They involve key aspects such as renting a strategic location, acquiring kitchen equipment, purchasing fresh raw materials, hiring trained personnel, marketing expenses and administrative management.
8. *Expense structure:* They include staff salaries, ingredient costs, maintenance costs of the premises and investment in advertising to maintain the visibility of the business.
9. *Income:* They will be primarily driven by health food sales through our online platform. In addition, we plan to diversify revenues through beverage sales, catering services for events and the implementation of a membership program for frequent customers.

#### D. Development

10. *Technologies:* We will implement an online ordering system that simplifies the purchase and payment process for our customers. In addition, we will implement an order management system in the kitchen to optimize efficiency in food preparation.
11. *Channels:* We will focus on online advertising targeted at office workers through social networks and offer free food samples at corporate events. In addition, we

will establish alliances with local companies to offer discounts to employees.

12. *Metrics:* We will measure the success of the business through the number of new customers, quality and service reviews and feedback, as well as sales revenue and profitability. These metrics will allow us to evaluate performance and make adjustments as needed.

#### IV. DISCUSSION

The application of the Lean Innovation Canvas (LIC) model in the context of developing a delivery application for SMEs in Jaén, Peru, offers valuable insights into its potential adaptability and relevance in diverse contexts and regions. Expanding its applicability requires a nuanced understanding of the underlying principles of the LIC model and the specific dynamics of different industries, markets, and socio-economic environments. Here, we discuss how the LIC model could be applied in other contexts or regions to enhance its relevance and applicability.

1. *Industry-Specific Tailoring:* The LIC model's effectiveness lies in its adaptability to various industries and sectors. By tailoring the model to the specific needs and challenges of different industries, such as retail, healthcare, or manufacturing, its relevance can be amplified. For instance, in the healthcare sector, the LIC model could be utilized to develop innovative solutions for patient care delivery, remote monitoring, or medical supply chain management.
2. *Regional Considerations:* Regional variations in market dynamics, consumer behavior, and regulatory frameworks necessitate a customized approach to applying the LIC model. Understanding the socio-cultural nuances, economic conditions, and infrastructure constraints of different regions is essential for successful implementation. For example, in rural areas with limited access to technology and logistics infrastructure, the LIC model may need to prioritize offline channels and alternative distribution methods.
3. *Collaboration and Knowledge Sharing:* Collaborative efforts among stakeholders, including entrepreneurs, policymakers, academia, and industry experts, can foster knowledge sharing and cross-pollination of ideas. By leveraging collective expertise and resources, the applicability of the LIC model can be enhanced across diverse contexts. Initiatives such as industry clusters, innovation hubs, and cross-sector partnerships can facilitate the exchange of best practices and accelerate the adoption of the LIC model.
4. *Socio-Economic Impact Assessment:* Assessing the socio-economic impact of LIC-driven initiatives is crucial for evaluating their effectiveness and sustainability. Beyond financial metrics, indicators

such as job creation, income generation, and community development should be considered. Conducting rigorous impact evaluations and longitudinal studies can provide valuable insights into the long-term implications of LIC-driven interventions on local economies and livelihoods.

5. *Capacity Building and Training:* Building the capacity of local entrepreneurs and stakeholders to apply the LIC model effectively is paramount for its widespread adoption. Training programs, workshops, and mentorship initiatives can equip aspiring entrepreneurs with the knowledge, skills, and tools needed to navigate the innovation process. Emphasizing experiential learning and real-world case studies can further reinforce the practical application of the LIC model in different contexts.

In summary, the Lean Innovation Canvas model holds significant potential for driving innovation and economic growth across diverse contexts and regions. By customizing the model to suit industry-specific requirements, considering regional nuances, fostering collaboration, assessing socio-economic impact, and investing in capacity building, its relevance and applicability can be expanded. Embracing a holistic approach that integrates technological innovation with social and economic development goals is essential for realizing the full potential of the LIC model in addressing global challenges and creating sustainable solutions for the future.

#### V. CONCLUSION

In conclusion, the Lean Innovation Canvas method can be a valuable tool for developing new business models to enhance their viability and address defined problems. Additionally, the case study of the app delivery for micro, small, and medium enterprises (SMEs) highlights how Lean Innovation Canvas can be an invaluable methodology for driving business development and growth in the MSME sector. This approach focuses on understanding the specific needs and challenges faced by SMEs, along with constant iteration and value delivery, resulting in the creation of an innovative solution that benefits SMEs by increasing sales and attracting more customers.

One concrete example of how the Lean Innovation Canvas methodology can be successfully applied is the case of the app delivery service for SMEs. This innovative business successfully addressed the challenges faced by SMEs, including the lack of technological access, logistical limitations, and the need to adapt to changing customer demands. The validation of sales for the app delivery solution in SMEs demonstrated a significant increase in sales and a positive impact on business performance. This case study highlights the importance of adopting digital solutions, such as app delivery, to drive sales growth and enhance the competitiveness of SMEs.

The implementation of the app delivery, developed through the Lean Innovation Canvas methodology, provided SMEs

with an effective solution to increase their sales and attract more customers. By focusing on a detailed understanding of the needs and preferences of the SMEs, an attractive value proposition was designed, and the application was iteratively adapted based on feedback and input from the participating businesses. The analysis of the results shows that, throughout the analyzed period, a total of 490 orders were placed, generating total sales amounting to S/ 15,404.10. This demonstrates the positive impact of the app delivery on the sales growth of the participating SMEs. Additionally, a net profit of S/ 13,787.68 was achieved after deducting the commission for the sales generated. the app delivery developed using the Lean Innovation Canvas methodology proved to be a successful solution for driving business growth in SMEs.

In summary, the Lean Innovation Canvas methodology offers an effective framework for developing new business models that address the specific challenges faced by SMEs. Through customer understanding, continuous iteration, and value delivery, SMEs can overcome obstacles such as a lack of technological knowledge, logistical limitations, and market adaptation. The case of the app delivery service illustrates how this methodology can drive the business development and growth of SMEs in the local market, generating positive outcomes for the companies and the overall economy.

## VI. RECOMENDATIONS

Having demonstrated a positive impact on increasing the sales and competitiveness of participating companies, it is suggested that the application be further optimized and adapted to the changing needs of the market and clients. In addition, consideration may be given to expanding the geographical scope of the service to reach more MSEs and maximize its growth potential.

It is recommended to continue using the Lean Innovation Canvas approach in the development of new business models, as it has proven to be effective in identifying opportunities, validating solutions and maximizing financial viability. By applying this approach consistently, App Delivery can continue to improve its performance and competitiveness in the marketplace.

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