

Universidad de Lima  
Facultad de Ingeniería y Arquitectura  
Carrera de Ingeniería Industrial



# **STRUCTURAL CHARACTERIZATION OF ECOMMERCE FOR ITS GROWTH AND DEVELOPMENT IN PERU**

Tesis para optar el Título Profesional de Ingeniero Industrial

**Winter Aaron Caycho Vilchez**

**Código 20160329**

**Duvant Alfonso Cespedes Olaya**

**Código 20160333**

**Asesor**

**Alberto Enrique Flores Perez**

Lima – Perú

Octubre de 2022

# STRUCTURAL CHARACTERIZATION OF ECOMMERCE FOR ITS GROWTH AND DEVELOPMENT IN PERU

Aaron Caycho-Vilchez  
Facultad de Ingeniería y  
Arquitectura  
Universidad de Lima  
Lima, Perú  
20160329@aloe.ulima.edu.pe

Duvant Céspedes-Olaya  
Facultad de Ingeniería y  
Arquitectura  
Universidad de Lima  
Lima, Perú  
20160333@aloe.ulima.edu.pe

Alberto Enrique Flores-Pérez  
Facultad de Ingeniería y  
Arquitectura  
Universidad de Lima  
Lima, Perú  
alflores@ulima.edu

Marcos Fernando Ruiz-Ruiz  
Facultad de Ingeniería y  
Arquitectura  
Universidad de Lima  
Lima, Perú  
mruiz@ulima.edu.pe

## Abstract:

The objective of this study was to determine those key variables or factors that characterize ecommerce in Peru and will drive its growth and development to reach the turnover levels of the main Latin American economies. In this sense, a PEST analysis was conducted to identify the most relevant variables of the system studied. Then, based on an exploratory and descriptive design, a structural analysis (French strategic foresight technique) was carried out with the participation of 5 experts in ecommerce and digital media. Likewise, the MICMAC tool (Matrix of Cross Impacts Multiplication Applied to a Classification) was used to determine the levels of motricity and dependency of each proposed variable. The results identified consumer electronics culture as the most sensitive variable and, to a lesser extent, the variables of ecommerce application development, consumer banking and consumer distrust. Furthermore, it was found that the COVID 19 pandemic has had a positive impact on the adoption of ecommerce in Peru. Finally, this study constitutes a starting point for the planning and design of future scenarios for the behavior of the ecommerce system in Peru in the medium and long term.

Keywords—ecommerce, structural characterization, foresight, MICMAC

**Conference Proceedings:** 2021 IEEE Sciences and Humanities International Research Conference (SHIRCON) | Date of Conference: 17-19 Nov. 2021

*Copyright © 2021, IEEE*

**DOI:** [10.1109/SHIRCON53068.2021.9652237](https://doi.org/10.1109/SHIRCON53068.2021.9652237)