

Impact of informal trade on labor employability in the Peruvian Amazon economy

Impacto do comércio informal na empregabilidade da mão de obra na economia da Amazônia peruana

Impacto del comercio informal en la empleabilidad laboral en la economía de la Amazonía peruana

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The study emphasizes the importance of promoting the gradual regularization of informal businesses to improve working conditions and facilitate equitable access to economic and social opportunities. The results may provide valuable insights for policymakers and decision makers in Peru as well as in other developing nations.

Originality/value:

The article emphasizes the necessity for specific policies to support informal traders, especially women, and to improve economic resilience based on empirical evidence.

ABSTRACT

Informal trade plays a vital role in the economy by providing employment opportunities to those seeking to meet their basic needs. Therefore, the objective was to assess the impact of informal trade on labor employability in the Peruvian Amazon. A descriptive cross-sectional study was conducted with a sample of 421 street vendors from streets, avenues, and market surroundings. Data collection was carried out through a survey, whose metrics were determined by content validity and reliability processes. The results indicate that most participants were between 31 and 40 years old, predominantly women, had secondary education, and were Peruvian nationals. Regarding informal trade, most were self-employed and earned daily incomes ranging from 100 to 500 new soles. Street vending was predominant, with snacks and meals being notable products sold. Finally, it was concluded that informal trade in Madre de Dios generates 1,636 direct jobs, representing 2.1% of the population. The majority are women aged 31-40 with secondary education, earning between 100 and 1,000 soles, and working between 8 to 10 hours daily. The findings highlight the need for targeted policies to support informal traders, particularly women, and enhance economic resilience.

Keywords: informal commerce; informal economy; employment; labor conditions; Peruvian economy.

RESUMO

O comércio informal desempenha um papel vital na economia ao oferecer oportunidades de emprego para aqueles que buscam satisfazer suas necessidades básicas. Portanto, o objetivo deste estudo foi avaliar o impacto do comércio informal na empregabilidade na Amazônia peruana. Foi realizado um estudo descritivo transversal com uma amostra de 421 vendedores ambulantes de ruas, avenidas e mercados ao redor. A coleta de dados foi feita por meio de uma pesquisa, cujas métricas foram determinadas por processos de validade de conteúdo e confiabilidade. Os resultados indicam que a maioria dos participantes tinha entre 31 e 40 anos, eram principalmente mulheres, tinham ensino secundário e eram de nacionalidade peruana. Em termos de comércio informal, a maioria era proprietária e obtinha renda diária entre 100 e 500 novos sóis. As vendas de rua predominavam, com destaque para a venda de lanches e refeições. Em conclusão, descobriu-se que o comércio informal em Madre de Dios gera 1.636 empregos diretos, o que representa 2,1% da população. A maioria são mulheres entre 31 e 40 anos com ensino secundário, ganhando entre 100 e 1.000 sóis e trabalhando de 8 a 10 horas diárias. El estudio destaca la necesidad de políticas específicas para apoyar a los comerciantes informales, especialmente a las mujeres, y aumentar la resiliencia económica.

Palavras-chave: Comércio informal; economia informal; emprego; condições de emprego; economia peruana

RESUMEN

El comercio informal desempeña un papel vital en la economía al ofrecer oportunidades de empleo a aquellos que buscan satisfacer sus necesidades básicas. Por tanto, el objetivo de este estudio fue evaluar el impacto del comercio informal en la empleabilidad laboral en la Amazonia peruana. Se llevó a cabo un estudio descriptivo transversal con una muestra de 421 vendedores ambulantes de calles, avenidas y alrededores de mercados. La recopilación de datos se realizó mediante una encuesta, cuyas métricas fueron determinadas por procesos de validez del contenido y confiabilidad. Los resultados indican que la mayoría de los participantes tenían entre 31 y 40 años, eran principalmente mujeres, tenían educación secundaria y eran de nacionalidad peruana. En términos de comercio informal, la mayoría eran propietarios y obtenían ingresos diarios entre 100 y 500 nuevos soles. Las ventas callejeras predominaban, destacándose la venta de refrigerios y comidas. En conclusión, se encontró que el comercio informal en Madre de Dios genera 1,636 empleos directos, lo que representa el 2.1% de la población. La mayoría son mujeres de 31 a 40 años con educación secundaria, que ganan entre 100 y 1,000 soles y trabajan entre 8 y 10 horas diarias. El estudio destaca la necesidad de políticas específicas para apoyar a los comerciantes informales, especialmente a las mujeres, y aumentar la resiliencia económica.

Palabras clave: comercio informal; economía informal; empleo; condiciones laborales; economía peruana.

INTRODUCTION

Informal trade, a global challenge, is driven by socio-economic factors such as job shortages, family responsibilities and limited career opportunities. (Cueva et al., 2022), It is crucial to highlight that micro and small enterprises, especially newly established ones, have a significant impact on developing economies, benefiting in terms of labor costs and employment. (Esquivel-García et al., 2019).

Informal street commerce is mainly carried out among a specific segment of the Peruvian population, with limited economic resources, lack of understanding regarding commercial regulations, lack of an established place to carry out their commercial operations. (Sánchez & Alfonso-Quispe, 2020), in order to generate income to cover their basic or subsistence needs (OIT 2013). Food and beverage purchases are carried out in different stalls, both formal and informal, forming a mixed environment (Farah et al., 2023), places of purchase range from informal selling (street vendors, markets, acquaintances) to formal sales (restaurants, supermarkets and chain stores), including mixed options (local stores and public markets) (Domínguez-Barreto et al., 2023). Ambulatory trade challenges the idea of a competitive market by failing to meet Pareto efficiency, thus constituting a market imperfection. (Muñoz, 2021) Trade impacts the economy due to the socioeconomic repercussions it generates (Teneda-Llerena et al., 2018).

From 2002 to the present, "informality" has emerged as a crucial issue in global discussions. Informal trade is presented as a way to generate employment among low-income families, promoting economic activity and meeting the demands of the population, which contributes to raising the well-being of those with limited incomes (Esquivel-García et al., 2019), most individuals are forced to work in the informal economy due to the scarcity of job opportunities. not so much to a choice, but rather to the absence of opportunities in the formal economy. (Morales, 2016). Entrepreneurship and family businesses play a crucial role in economic dynamics, driving the creation of new businesses that stimulate employment, innovation and economic development. (García & Méndez, 2022).

Informal employment and trade: prevalence in developing countries, institutions, and international context

Informal employment and trade is a prevalent and enduring feature in the labor markets of developing countries, often serving as a crucial source of livelihood for many individuals. This sector encompasses all jobs not regulated by the state and is characterized by a lack of social protection and formal employment benefits. More than half of the working population in Latin American and Caribbean (LAC) countries, for example, is engaged in informal employment, with significant implications for worker health and well-being (Utzet et al., 2021). The informality of employment can lead to precarious working conditions, lack of job stability, and increased vulnerability to exploitation and abuse (Estevão et al., 2022).

Studies indicate that informal economy is not merely a temporary phenomenon but a persistent structural feature in many developing economies. In Latin America and the Caribbean, for instance, informal employment accounted for 53.7% of the workforce in 2022, compared to much lower rates in North America and Europe (Merino-Salazar et al., 2023). The informal economy offers resilience and innovation opportunities, yet it remains undervalued in discussions on sustainable development and green economies (Smit & Musango, 2015).

The informal economy's impact on macroeconomic volatility is significant, often leading to higher observed consumption volatility due to its poor measurement in national accounts (Restrepo-Echavarría, 2014). The COVID-19 pandemic further highlighted the vulnerability of the informal sector, with substantial disruptions in business activities, particularly among female and urban micro-business owners (Guo et al., 2022). Institutions and public policies play a crucial role in shaping the informal economy. For instance, policies in Burkina Faso aimed at enhancing capital access in the informal sector have shown mixed effects, highlighting the need for a nuanced approach to informality (Traoré & Ouedraogo, 2021). Similarly, labor market policies in Turkey have demonstrated that informality can decline naturally in a growing economy, although reducing formal labor costs can be more effective in combating informal employment (Saraçoğlu, 2020).

Moreover, the business environment, including factors like credit access, tax systems, and investor protection, significantly influences informality levels. In African countries, for instance, improved state efficiency and market factors can reduce informality, though challenges like ineffective tax systems and poor investor protection persist (Estevão et al., 2022). In Colombia, the informal mining sector's dynamics reveal how institutional inefficiencies and exclusionary policies foster informality, necessitating policy changes for sustainable development (Lara-Rodríguez, 2021).

Information and communication technologies (ICT) have emerged as a vital tool in mitigating the spread of the informal economy. In Africa, ICT usage, particularly mobile phones and the internet, has been shown to reduce informality by enhancing financial development and control of corruption (Ndoya et al., 2023; Kpognon, 2022). The informal economy's persistence highlights the need for comprehensive policy interventions tailored to specific developmental contexts. The relationship between GDP per capita, institutional quality, and trade openness with the size of the informal economy suggests that while economic growth and improved institutions can reduce informality, this relationship is complex and varies across

different development levels (Salinas et al., 2023).

Notes regarding the informal Peruvian Amazonia economy

Since 2016, in Peru, the informal sector accounted for 18.4% of the Gross Domestic Product and comprised 72% of the Economically Active Population employed in informal jobs. (Costa, 2017). Non-formal trade is a common facet in many cities and areas of the globe, and the Peruvian Amazon is no exception. In this environment, it is distinguished by the itinerant sale of various products in different urban environments (streets, avenues) and rural environments (human settlements), markets, along with the existence of small shops and informal stalls that are sustained by these economic activities. Informal trade in the Peruvian Amazon provides income for many individuals, however, it also poses considerable challenges. These include difficulty finding formal employment, the absence of state regulation, the scarcity of educational and job opportunities to access well-paying jobs, quick income, and tax evasion.

Despite this, informal trade has advantages, such as its flexibility and adaptability, as well as the ability to meet needs in areas not reached by formal businesses, as well as demonstrating resilience in crisis situations. It is essential that the government develops policies that recognize the relevance of informal trade in the economy and provide social security for informal workers, without harming conventional employment. This form of commerce reflects people's creativity and entrepreneurial spirit, and can foster innovative solutions in a competitive and challenging environment. To address these difficulties, it is crucial to collect adequate data and understand informality in particular contexts, as well as having effective tools to analyze its root causes. A comprehensive strategy is needed to ease the transition to formality. (OIT, 2013).

The Madre de Dios region, located in the Peruvian Amazon, stands out for its abundant biodiversity and an expanding economy, driven by mining and tourism. However, it faces a growing problem of informal trade, which has proliferated in recent decades. This type of trade encompasses economic activities that take place outside the legal and fiscal regulations and obligations established by the State. While informal trade can generate income and contribute to economic development, it also has a negative impact on employment in the Amazon region. (Vizcarra, 2018). However, nations with less stringent labor regulations exhibit a higher incidence of informal entrepreneurship. (Salinas et al., 2023). Most informal workers are adults of both genders, married, and owners of the homes where they reside, which are located in the same areas where they work. Most have previous formal work experience and consider themselves satisfied merchants with their jobs, which they usually perform seven days a week (Moyano-Díaz et al., 2008).

The aim of this research is to evaluate the impact of informal trade and labor employability in the Peruvian Amazon. Diagnosing a comprehensive examination of the current situation of informal trade in the Amazon, addressing its attributes and its connection to the availability of employment. In addition, suggestions for government policies aimed at promoting labor formalization and mitigating the adverse effects of informal trade will be presented. It is important to underline that informal trade in the Amazon encompasses a wide range of economic activities, from the street vending of products to the provision of services such as the repair of household appliances or construction. According to data from the National Institute of Statistics and Informatics (INEI), in 2020 there were approximately 11,000 informal workers in the Madre de Dios region, representing 49% of the total employed in the area. This figure is significantly higher than the national average of around 30%.

Regarding the characteristics of informal workers in the Amazon, there is a notable diversity in gender, age, educational level and work experience. They are usually excluded from formal employment due to barriers such as lack of training, discrimination, or lack of job opportunities. In addition, informal trade avoids the payment of taxes and social security contributions, reducing tax collection for local and national governments and affecting investment in infrastructure and public services that stimulate job creation. It is crucial that the government implements policies that provide social protection to informal workers and foster a fair and competitive environment for the formal sector. The objective of this research is to evaluate the impact of informal trade on labor employability in Puerto Maldonado. To this end, a detailed analysis of the current situation of informal commerce in the city, its characteristics and its relationship with labor employability will be carried out.

METHODS

The research adopted a combined quantitative and qualitative or mixed approach, using statistical techniques to address the objectives through questionnaires. The design was not experimental, as the variables of informal trade and labor employability were observed and analyzed without deliberate manipulation. The study was descriptive and cross-sectional, allowing the analysis of the characteristics of the study variable in relation to other variables during data collection at a specific time. (Hernández & Mendoza, 2018). The sample consisted of 421 street vendors working in streets, avenues and urban and rural markets, the sample was chosen for its convenience and ease that allowed us to carry out an adequate and manageable study.

For data collection, a survey or questionnaire was used as an instrument, structured and applied to each informal trader according to their sector of activity, divided into two sections. The first part of the questionnaire collected data on informal trade, including the type of goods or services offered, the location of the business, working hours, ownership of the establishment, and the number of employees. In the second section, the questionnaire related to labor employability was applied, addressing aspects such as gender, age, educational level, marital status, time availability and salary remuneration. This questionnaire was adapted from Raudales & Alvarenga (2018) to the Amazonian reality, consisting of five dimensions and 10 quantitatively qualified items. The metric properties were evaluated by three experts. The statistical analysis included a descriptive approach using figures obtained from the SPSS VS 25 software, calculating the percentage distribution of the variable, dimensions and study items.

Following the ethical principles of the Declaration of Helsinki, this study was conducted in strict compliance with ethical standards. All participating informal traders gave informed consent after receiving a detailed explanation of the purpose and procedures of the research. In addition, the confidentiality of the data collected was ensured and the well-being of respondents was protected at all times.

RESULTS AND DISCUSSION

The study involved 421 individuals, with sociodemographic characteristics that reveal that 42.3% are in the age range of 31 to 40 years, 77.7% are women, 37.3% are cohabitants, 61.8% have secondary education and 96.2% are of Peruvian nationality. In relation to the description of informal commerce, it was observed that 81.5% are owners, 71.5% have daily incomes of 100 to 500 soles, 67.5% live in urban areas, and 73.7% make sales on the streets. The type of business or informal activity is detailed in Table 1, with snacks standing out with 33%, followed by the sale of food with 23.5%, clothing with 15.4%, crafts with 10.9%, among others, as presented in Table 1.

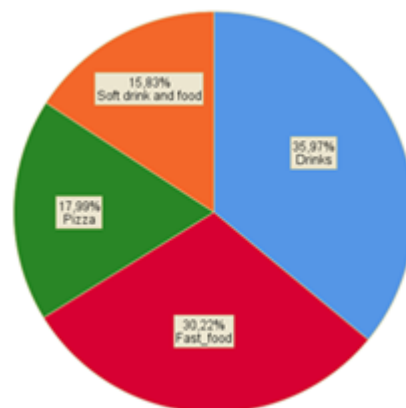
Table 1. Type of informal trade

Type	Frequency	Percentage
Beauty	20	4.8
Food	99	23.5
Crafts	46	10.9
Products electronic	20	4.8
Snacks	139	33.0
clothes	65	15.4
Services	32	7.6
Total	421	100.0

Source: own elaboration with the research data (2024)

Figure 1 shows the activities carried out in the informal snack trade. It is observed that 35.97% is dedicated to the sale of beverages, such as soft drinks, bottled water and energy products. 30.22% specialize in the sale of fast food, such as sandwiches, empanadas and portions of typical dishes such as *juane*, *tacacho* and *tamales*. In addition, 17.99% is dedicated to the sale of individual pizzas, mainly during the evening hours.

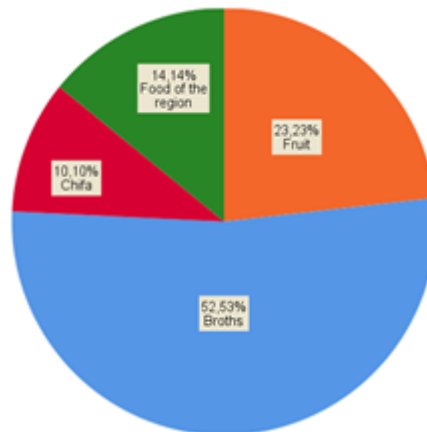
Figure 1. Informal trade in snacks



Source: own elaboration with the research data (2024)

Figure 2 shows the different items in the sale of food. Broths, such as chicken, cow's foot, beef and chilcano, represent 55.53% of sales, followed by fruits with 23.23% and typical foods of the region, such as chicken canga, patarasca and cecina, with 14.14%. The following are the different areas to which the types of informal trade are dedicated:

Figure 2. Informal trade in meals



Source: own elaboration with the research data (2024)

Table 2 shows the items in the informal beauty trade, broken down by type, frequency, and percentage. Personal cleanliness products represent 30.0% of the total, while makeup products constitute 70.0%.

Table 2. Items in the beauty informal trade

Type	Frequency	Percentage
Personal Cleanliness	6	30.0
Makeup	14	70.0
Total	20	100.0

Source: own elaboration with the research data (2024)

Table 3 shows the items in the informal handicraft trade, broken down by type and percentage. Handicrafts account for 87.0% of the total, while textiles constitute 13.0%.

Table 3. Items in the informal trade of handicrafts

Type	Frequency	Percentage
Crafts	40	87.0
Textile	6	13.0
Total	46	100.0

Source: own elaboration with the research data (2024)

Table 4 displays items in the informal clothing trade, broken down by frequency and percentage. The data reveals that new clothing items are the most common, accounting for 67.7% of the total. Shoes are also significant, representing 27.7%. On the other hand, used clothing constitutes a smaller percentage, only 4.6%.

Table 4. Items in the informal clothing trade

Type	Frequency	Percentage
Shoes	18	27.7
New clothes	44	67.7
Used clothing	3	4.6
Total	65	100.0

Source: own elaboration with the research data (2024)

Table 5 shows items in the informal trade of electronic products, broken down by frequency and percentage. The data indicates that cell phones and their accessories have a frequency of 20.0%, while appliances account for 80.0%.

Table 5. Items in Informal trade electronic products

Type	Frequency	Percentage
Cell phones and accessories	2	20.0
Appliances	8	80.0
Total	10	100.0

Source: own elaboration with the research data (2024)

Table 6 shows repair services in informal trade, broken down by frequency and percentage. The data reveals that motorcycle repairs are the most frequent, comprising 40.6% of the total. They are followed by car and appliance repairs, each at 18.8%. Shoe repairs and bicycle repairs represent 12.5% and 9.4%, respectively.

Table 6. Items in informal trade repair services

Type	Frequency	Percentage
Car	6	18.8
Bicycle	3	9.4
Footwear	4	12.5
Appliance	6	18.8
Motorcycle	13	40.6
Total	32	100.0

Source: own elaboration with the research data (2024)

Labor employability in informal trade is crucial, as this area is often a significant source of employment for many individuals. According to the study carried out (see table 7), 34.9% of merchants employ 4 workers, followed by 26.1% who employ 3 and 20.4% who employ 5 workers, these being the most predominant.

Table 7. Number of workers in informal trade

Workers	Frequency	Percentage
2	45	10.7
3	110	26.1
4	147	34.9
5	86	20.4
+6	33	7.8
Total	32	100.0

Source: own elaboration with the research data (2024)

This dataset describes the distribution of workers' salaries in terms of frequency and percentage, using the Peruvian currency, soles. It shows that the majority of workers receive salaries in the range of 100 to 500 soles, accounting for 32.5% of the total. This is followed by the range of 500 to 1000 soles, at 29.9%. A significant number also receive salaries between 1000 and 2000 soles, comprising 29.7%. Higher income brackets, between 2000 and 3000 soles, represent 6.7%, while less than 1.2% earn more than 3000 soles.

Table 8. Worker's salary

Salary	Frequency	Percentage
[+3000[	5	1.2
[100 – 500 [	137	32.5
[1000 - 2000[	125	29.7
[2000 - 3000[	28	6.7
[500 - 1000[	126	29.9
Total	421	100.0

Source: own elaboration with the research data (2024)

DISCUSSION

The study carried out with 421 cases of informal trade is estimated to generate around 1636 direct jobs, which represents approximately 2.1% of the population of the city of Puerto Maldonado, which is the most important city in the Department of Madre de Dios. According to research by Cueva et al. (2022), informal trade is a major global challenge,

influenced by socioeconomic factors such as the lack of job opportunities. (Esquivel-García et al., 2019), family responsibilities and limited professional development options (Morales, 2016). This leads many people to choose to work in the informal economy. In Peru, in 2016, the informal sector represented 18.4% of GDP and 72% of the economically active employed population was in informal jobs, according to (Costa, 2017)

Informal trade is a way to create job opportunities for families with few economic resources. It helps to boost the domestic economy and meet the needs of customers and the population in general, while improving the quality of life of people with lower incomes (Esquivel-García et al., 2019) The most prominent socio-demographic characteristics of informal traders are as follows: 42.3% are between the ages of 31 and 40. Previous research by Quispe-Fernández et al. (2018) indicates that the average age of participation in informality is 44 years, suggesting that this population probably has economic and family responsibilities, thus seeking to support those who depend on them (Raudales & Alvarenga, 2018). In terms of gender, 77.7% are women, a figure that coincides with the results found by Quispe-Fernández et al. (2018). 61.8% have secondary education, similar to the 50% reported by Jiménez-Palacios (2019) for this level of education, and 96.2% are of Peruvian nationality. This aligns with Smit and Musango (2015), who suggest that informal economies provide crucial employment opportunities, particularly for marginalized groups. The high proportion of women engaged in informal trade underscores gender disparities in employment, as informal sectors often absorb individuals unable to secure formal employment.

Among the main reasons for the increase in informal trade are lack of stable employment, limited work experience, early marriage and motherhood, discrimination, especially towards women, and lack of education, which has been identified as the most significant factor, given that most people have not completed secondary education (Aburto, 2017). The findings reveal that, in the field of informal trade, 81.5% of the participants are owners, which underscores the importance of entrepreneurship and family businesses in the economic dynamics. These fundamental elements drive the creation of new businesses and job opportunities through innovation and the generation of new ideas. (García & Méndez, 2022).

In relation to the daily income, which ranges between 100 and 500 soles for 71.5% of the participants, this reduced economic level is mainly attributed to the lack of sufficient capital and the limited diversification of products in informal businesses. This corroborates the observations by Guo et al. (2022) on the resilience of informal economies, which can adapt swiftly to economic disruptions such as the COVID-19 pandemic. The range of informal activities, from food and clothing to electronic repairs, further illustrates the diversity and adaptability of this sector. Additionally, the association between informal trade and socioeconomic status, as seen in the high engagement of individuals with secondary education, supports the findings of Utzet et al. (2021) and Merino-Salazar et al. (2023) on the link between informal employment and health disparities, highlighting the need for policies that address these inequalities to foster more equitable and sustainable development. According to Sánchez & Alfonso-Quispe (2020), informal trade represents an activity carried out by a population with limited economic resources, who seek to generate income for their subsistence. The scarcity of appropriate spaces has led to the majority of this activity taking place on the streets (73.7%). The use of public space for informal economic activities is common in urban areas, such as streets, parks, and other available spaces. It could be argued that, if this were not the case, and if the economic activity was carried out in established premises or properties, it would be considered formal commerce, given the need to register the property, pay taxes, among other aspects (Acevedo, 2017). In addition, the lack of adequate physical spaces to carry out their commercial activities has led informal traders to occupy these public spaces (Sánchez & Alfonso-Quispe, 2020).

The diversity of informal businesses is presented in Table 1, where it is highlighted that 33% are dedicated to the sale of snacks, followed by 23.5% dedicated to food, and 15.4% to clothing, among others. It is noteworthy that both snacks and food can be grouped under the general category of food products, which together represent 56.5% of the total, a figure that is similar to that reported by Raudales & Alvarenga (2018), who indicated 60%, and Gamboa et al. (2016), who reported 74% of businesses dedicated to the sale of food. The predominance of snack and food sales (56.5%) among informal activities suggests a trend towards easily accessible and low-capital ventures, reinforcing the findings of Restrepo-Echavarría (2014) on the role of the informal economy in offering viable income sources amidst macroeconomic volatility.

In reference to merchants who sell clothing (15.4%), Jiménez-Palacios (2019) highlights that the trade of second-hand clothing and footwear represents a relevant economic activity in the border cities of Tacna (Peru) and Arica (Chile), where approximately 12 thousand families depend on this activity. Not only does this type of commerce offer job opportunities, but it also provides more affordable shopping options for consumers, especially those with limited economic resources, thus contributing to the diversity and vitality of local markets. However, street clothing vending can pose challenges in terms of public order, safety, and regulatory compliance. In addition, it can lead to congestion on public roads and unfair competition with established merchants who comply with their tax obligations and regulations. There may also be issues related to the quality and authenticity of the products sold.

The itinerant trade in handicrafts represents an important source of income for artisans and small producers, providing them with an otherwise difficult access to the market. In addition, it contributes to the preservation of cultural traditions and promotes cultural tourism by offering visitors the opportunity to purchase authentic and local products. Employment in the informal trade sector is a widespread reality in many countries and cities around the world. In this activity, people find a means of economic subsistence due to the scarcity of opportunities in formal employment, the urgency of obtaining immediate income, the flexibility in schedules and the opportunity to start their own business with low initial costs. The results of the research reveal that 62.4% of the participants receive a salary ranging between 100 and 1000 soles, with a daily workday of 8 to 10 hours, which represents 71% of the respondents. With regard to education, 21.9% have regular basic secondary education, while 62.5% have primary education. Only 17.1% of respondents are employees, suggesting that the remaining 75% manifest relative stability as owners of their informal businesses. In addition, it is observed that 34% of these economic activities are carried out in unhealthy places, with a lack of adequate hygienic services and public cleanliness problems, as well as the lack of drainage in most cases.

According to Sánchez de la Flor & Alfonso-Quispe (2020), most informal traders are unable to obtain a wage that reaches the minimum subsistence, lack legal protection, and continue in this employment situation due to their lack of experience and the "illegal" nature of their activity. In addition, they are subject to overexploitation of labour and work in precarious conditions, which endangers their physical and mental well-being. Informal workers in Peru are known for having low incomes, low productivity, and low educational attainment, as noted (Kamichi-Miyashiro, 2023), many of them have had formal employment in the past and identify with their informal work, which they usually do seven days a week, according to (Moyano-Díaz et al., 2008). However, informal trade can offer advantages such as work flexibility and the opportunity to start your own business with low start-up costs. For many people, especially those with low levels of formal education or who face barriers to accessing formal employment, informal trade can represent an important source of income and economic sustenance.

CONCLUSIONS

Informal trade in the Madre de Dios region accounts for a total of 1636 direct jobs, which is equivalent to approximately 2.1% of the population. These jobs are usually family in nature and are mostly occupied by people between the ages of 31 and 40, mostly women, with educational levels that reach secondary education. Among the main reasons that lead people to participate in informal trade are lack of stable employment, work inexperience, early marriage and motherhood, as well as discrimination, especially towards women, and lack of education, considered to be the most significant factor.

In terms of working conditions, it is observed that 62.4% of informal workers receive a salary ranging between 100 and 1000 soles, while the average working day is between 8 and 10 hours a day, according to 71% of respondents. In terms of educational level, 21.9% have regular basic secondary education and 62.5% only have primary education. Only 17.1% of informal workers are employed, which means that 75% say they have some stability because they own their businesses. However, 34% of these economic activities take place in unhealthy places, where most lack adequate toilets, leading to problems related to public cleanliness and the absence of drainage systems.

Limitations and future research

The study's primary limitations include its reliance on self-reported data, which may introduce some bias and inaccuracies, and the focus on a specific geographic region, limiting the generalizability of the findings to the entirely Peruvian case and Latin American context. Additionally, the cross-sectional design may limit the establishment of causal relationships, and the lack of detailed information on the impact of external factors, such as government policies or economic conditions, on informal trade further constrains the study's scope.

Table 9. Proposed agenda for future research

Variable	Dependent variable	Explanatory variables	Context	Possible approach
1	Informal trade income	Education level, gender, business type	Peruvian amazon	Longitudinal study with mixed methods
2	Health outcomes	Employment status, working conditions	Various informal sectors	Cross-sectional study with detailed surveys
3	Economic impact	Informal trade activity	Economic policies, market conditions	National level
4	Gender disparities	Income levels	Gender, business type, education level	Urban vs. Rural
5	Policy efficacy	Informal trade growth	Government policies, training programs	National and regional levels

Source: own elaboration with the research data (2024)

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