

Information notes: Technology and formalization

The following are a series of “information notes” on policies and programmes identified as innovative national practices of digital technologies to promote aspects of formalization. The case studies were selected as examples of where public policies makes use of digital technology in a way that can encourage the formalization of economic units through either i) simplifying registration and compliance, ii) increasing incentives to formalize (or decreasing incentives to remain informal) or iii) removing barriers to formalization.

The notes were prepared in advance of an [ILO South-South Knowledge Sharing Forum \(virtual\) on What works in e-formalization for Asia and the Pacific](#), 18–20 May 2021.

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Brazil: Nota fiscal paulista

Key words: enterprises formalization, compliance, incentives

1. Programme description

The Nota Fiscal Paulista (NFP) is a programme created by the government of the state of São Paulo in October 2007 in order to reduce tax evasion of the state's VAT, and to foster a culture of tax compliance. The NFP aims to affect both the likelihood that a transaction is reported and the accuracy of reporting.¹ Similar programmes have been adopted by several other states in Brazil.

2. Institutions

The programme was designed by the state of São Paulo.

3. Objective and operations

With NFP, whenever a consumer makes a purchase they can ask that their tax number be included on the receipt, which allows them to take advantage of tax rebates and to participate in monthly lotteries. Receipt information is transmitted directly to the tax authority by the firm. For every 50 USD spent, one lottery ticket is generated. For a given receipt, consumers receive a tax rebate of 30 per cent of the VAT paid by the final sale establishment in a month. On average, the tax rebate is around 1 per cent of the total value of the purchase.

Consumers have to create an online account at the tax authority's website, so they can collect rewards and cross-check the receipts issued with their tax numbers. Rewards can be (i) directly deposited into the consumer's bank account, (ii) used to pay other state taxes, (iii) transferred to another person with an online account or to a charity. The online system also allows consumers to file complaints about specific firms.² Alternatively, they can use the app Nota Fiscal Paulista, which was launched in 2017 and provides the same features as the website.

4. Key results/outcome

A comprehensive analysis of the programme from its start in October 2007 to December 2011 found that the programme generated a 9.3 per cent net increase in tax revenues.³ During that period, 13 million people enrolled online at the tax authority's website, which was 40 per cent of the people aged 15+ in the state. Over 1.1 billion USD was distributed in tax rebates and lottery prizes, and there were 1,151,518 complaints sent to the tax authority by 135,102 different consumers regarding 134,054 different establishments.

¹ Joana Naritomi, "[Consumers as tax auditors](#)", in *American Economic Review*, Vol. 109(9): 3031-72, 2019.

² Ibid.

³ Ibid.

The programme increased revenue reported in retail sectors by at least 21 per cent over four years. The estimated effect is stronger for smaller firms, for sectors with a high number of different consumers, high volume of transactions, and small ticket items. Consumer whistleblowing was also effective: firms reported 7 per cent more receipts and 3 per cent more revenue after receiving their first complaint.

The programme also allows consumers to donate their receipts to NGOs. Before 2017, it raised 110 million Brazilian reais (roughly 20 million USD) per year for NGOs, making it one of the most important sources of revenues for them.⁴

5. Lessons learned

The programme was amended in 2017 to address two issues: consumer participation had declined by 42 per cent since the start; and it was fueling a growing fraud industry regarding donations of tax coupons to NGOs.⁵ Before the changes, consumers who wanted to donate to NGOs had to deposit the receipt in a dedicated box inside the commercial establishment. However, in recent years, boxes had been stolen.⁶ Since 2017, consumers who wish to donate must do so through the website or the official app.

To further counter declining participation, the number of prizes and their values increased from 2017. There are also separate raffles for individuals and for NGOs, so they no longer compete against each other.

6. Website

São Paulo State Government, Finance and Planning Department

Website: <https://portal.fazenda.sp.gov.br/servicos/nfp/Paginas/Introducao.aspx>

7. Links

Chacaltana, Juan, Vicky Leung and Miso Lee. 2018. "[New technologies and the transition to formality: The trend towards e-formality](#)".

Salazar-Xirinachs, José Manuel and Juan Chacaltana (eds.). 2019. "[Políticas de formalización en América Latina: avances y desafíos](#)" (Spanish).

⁴ Secretaria da Fazenda e Planejamento do Estado de São Paulo, [Informações Básicas sobre a Nota Fiscal Paulista](#), 2021.

⁵ Ibid; G1 Ribeirão e Franca, "[Em 10 anos, adesão de consumidores à Nota Fiscal Paulista diminui 42%](#)", 19 March 2017.

⁶ São Paulo Governo do Estado, "[Nota Fiscal Paulista permite doação automática à ONGs](#)", 14 March 2018.

Chile: PreviRed

Key words: social security, incentives, MSME

1. Programme description

PreviRed is an online platform for the declaration and payment of social security contributions.⁷ It can be used by enterprises, employers of household workers and own-account workers. It brings together contributions for pensions, health, employment injury, family allowances and unemployment insurance, and automatically calculates the amount for each worker and each payroll. The services have been implemented gradually.⁸

With the creation of PreviRed, the complexity of the procedures and transaction costs associated with social security transactions have been substantially reduced, saving time and providing a flexible 24-hour service which is free-of-charge, paperless and does not require the physical presence of users. This has had a major effect on the operation of small enterprises.

2. Institutions

The PreviRed platform was created by five private pension funds administrators in 2001. It now encompasses all private and public entities of the Chilean social security system and is fully back by the Directorate of Labour.⁹

3. Objective and operations

The programme's objective is to simplify procedures and reduce transaction costs of social security services, especially in terms of time.

Users access PreviRed with their national identity number (RUN) and a password. The system is connected for online payments to all financial banking institutions and some non-banking institutions, such as commercial companies operating credit cards. The platform simplified procedures by standardizing forms and harmonizing data among the participating institutions. There are two options: (a) make both the declaration and payment of social security contributions; and (b) make the declaration only – as some employers prefer to make payments directly through the bank. With PreviRed the payroll or workforce is paid within 24 hours by the financial system, while statutory contributions are paid during the first 12 days

⁷ PreviRed, "[Quienes Somos](#)", 2021.

⁸ ILO, "[Formalization: The Case of Chile](#)", 2019.

⁹ Lysette Henríquez, "[Experiencias de políticas públicas para la formalización económica y laboral en Chile](#)", 2019

of the month.¹⁰ On PreviRed there is also a wide selection of compensation software for firms, some of which is free.¹¹

A further advantage is that certificates of paid contributions obtained on PreviRed are legally valid. In fact, these documents are regularly used before the Labour Court in order to prove that social security contributions have been duly paid.¹²

4. Key results/outcome

At present, the system collects 98 per cent of contributions payable to private pension fund administrators, 99 per cent of those to the FONASA (public health care) and 88 per cent of those to the ISAPRES (private health care). In the period 2010–17, the number of contributors on PreviRed increased significantly. Contributions of workers increased by 71 per cent, employers by 66 per cent and own-account workers by 46 per cent.¹³

5. Lessons learned

Since its launch as a purely private platform, PreviRed has come to include public entities as well, thus considerably increasing its scope. However, the platform remains privately administered and has been criticized for this reason, with some researchers suggesting that the Chilean State develop its own similar public platform.^{14,15}

PreviRed is also not taking advantage of increased smartphone usage. It does not currently provide a smartphone app for its users, so a computer is always needed to use its services. Mobile payments are another viable option to reach a wider audience of users: social security contributions could be detracted from existing phone credit (in the case of a prepaid phone) or added to the monthly bill (in the case of a contract mobile phone).¹⁶

6. Website

PreviRed website: www.previred.com

¹⁰ ILO, "[Formalization: The Case of Chile](#)", 2019.

¹¹ PreviRed, "[Software de Remuneraciones](#)", 2021.

¹² Gabriela Mendizábal Bermúdez, Alfredo Sánchez-Castañeda and Patricia Kurczyn Villalobos (eds.), "[Industry 4.0. Labor and Social Security](#)", 2021.

¹³ ILO, "[Formalization: The Case of Chile](#)", 2019.

¹⁴ Mendizábal Bermúdez, et al., op cit.

¹⁵ Raul Campusano Palma, "[Algunas propuestas para mejorar la recaudación de cotizaciones previsionales y disminuir el riesgo y costo en su cobranza](#)", 2015.

¹⁶ Mendizábal Bermúdez, op cit.

7. Links

Lysette Henríquez, [Experiencias de políticas públicas para la formalización económica y laboral en Chile](#), 2019 (Spanish)

ILO, [Formalization: The Case of Chile](#), 2019.

ILO, [Enterprise Formalization: Simplifying and facilitating business start-up and compliance](#), 2021.

China: Zhejiang Enterprise Wage Payment Online Supervision System

Key words: digital payment, compliance

1. Programme description

The Enterprise Wage Payment Online Supervision System was implemented in Zhejiang province of China in 2020 to allow the Ministry of Human Resources and Social Security (MOHRSS) to directly supervise wage payments. EWPOSS uses blockchain technology to achieve full supervision and real-time storage of enterprises' wage payments to workers in the construction sector. It builds a closed loop of wage payment monitoring with full chain traceability and full process monitoring with the participation of the authorities, banks, enterprises and migrant workers.

2. Institutions

The programme was established by the Labour and Social Security Inspectorate Bureau of Zhejiang in cooperation with the Ministry of Housing and Urban-Rural Development, and the Ministry of Human Resources and Social Security at the city level. The programme is linked to a second system launched nationwide in 2017 called the National Construction Workers Management and Service Information (NCWM&SI) System, which records the names of construction workers and real-time information on construction projects.

3. Objective and operations

For many years, wage arrears have been a prevalent problem facing rural migrant workers in China's construction sector, especially given the tendency of construction firms to contract labour through sub-contractors. In recent years, central and local governments of China have made various efforts to improve the efficiency of the labour inspection system in addressing wage arrears, including by using information technology. This comprehensive strategy includes specific legislation to address the issue of wage arrears. The "Eight Amendment to the Criminal Law" (2011) states that those who evade payment of a relatively large amount of labor remunerations shall be prosecuted; while the "Opinions on Comprehensively Controlling the Wage Delinquency of Migrant Workers" (2016) and the "Regulation on Ensuring Wage Payment to Migrant Workers" (2019) clarify department responsibilities and introduce specific measures.

The programme's goals are:

- First, to standardize name registration, attendance record and special wage account management. All construction projects must register on EWPOSS, access the name registration system, upload labour contracts and register departure information. General construction contractors register wage account information on the system and entrust banks to pay wages to the workers' individual bank accounts.
- Second, to guarantee the payment of wages in full and on a monthly basis. The system automatically sends wage confirmation information to the worker after entered by project management. Once the worker confirms the amount through the Xin Le Da App on their mobile phone, project management will approve the payment and the bank will make the transfer. If the worker disagrees with the wage amount, they can open a dispute on EWPOSS.
- Third, to build a guarantee mechanism for wage payment. Financial institutions are encouraged to launch special loan products to guarantee the payments to migrant workers. If the project's wage account is temporarily unable to pay the full amount of wages, the bank will use the special loan to pay the wages first.
- Fourth, to prevent wage arrears through real-time monitoring and early warning measures. EWPOSS can monitor the risk of non-payment of wages from multiple angles, such as the flow of special funds, the amount of wages paid, and the level of wages of positions, and send the monitoring information to the joint early warning command system and thus counteract wage arrears in real time.

4. Key results/outcome

The labour inspection services of Zhejiang Province believe that the use of information technology has significantly improved the effectiveness of supervision. Before the wage payment monitoring system was established, it was impossible to realize real-time monitoring of more than 20,000 construction projects in Zhejiang Province. Information technology has made it possible to monitor the whole process of the labour relation. If a project fails to pay wages to workers through the bank within the stipulated time, the system will automatically prompt the local labour security inspectors to intervene in time.

5. Lessons learned

Some workers are reluctant to receive their wages through bank transfers, preferring to receive cash instead. The wages of construction workers are generally higher than the individual tax threshold in China, but many workers have not yet developed the concept of paying taxes in accordance with the law, and are therefore more likely to demand cash payments to avoid paying taxes. In this regards, there remains some inertia in changing mindsets towards a more universal ease with digital payments.

Although wages are paid monthly the work cycle of some workers can be shorter, which prompts them to ask to be paid immediately before departure. Also, when banks are not open for business during holidays or weekends, subcontracting companies have to pay wages in

cash. Although these are special situations, they need to be considered and resolved in the next step of implementation.

6. Website

Zhejiang Government website: <http://www.zj.gov.cn/>

7. Links

Huang, Kun; Wei Tu and Wenjing Li. 2021. "Using information technology to improve labour inspection efficiency and guaranteeing wage payment to workers in construction sector in China", presentation for ILO-UN ESCAP Research Forum on Technology and the Transition from Informal to Formal Economy, 19 January 2021.

Huang, Kun. Forthcoming 2022. "Information Technology to Guaranteeing Wage Payment to Construction Workers in China", ILO Working paper.

Estonia: Entrepreneur Account

Key words: compliance, economic unit registration, incentives

1. Programme description

An entrepreneur account is a bank account for private persons that allows them to operate in a manner similar to an entrepreneur, but without the hassles of preparing documentation like monthly tax declarations and financial statements. An individual that has opened an entrepreneur account is under no obligation to register as an entrepreneur or to keep a statement of revenue and expenditure.¹⁷

An entrepreneur account is useful for those who provide services to other persons in areas of activity that do not involve direct expenses, or for those who sell self-produced goods or handicraft goods. Examples of entrepreneurial services include baby-sitting, housekeeping, gardening, repair or construction services that do not involve direct costs or in which the customer pays for the costs. Other examples include the sale of self-produced goods like handicrafts, art, food or plants. In such cases, the cost of raw materials is low compared to the selling price of the goods. Finally, the entrepreneur account is also an appropriate solution for new forms of entrepreneurship, like the provision of services on digital platforms, including ride-sharing service platforms like Uber, Taxify or Bolt.¹⁸

2. Institutions

“Business accounts” (aka entrepreneur accounts) were introduced and regulated in 2017 with the passage of the Simplified Business Income Taxation Act. LHV Bank is currently the only bank in Estonia that offers this type of account.

3. Objective and operations

The goal of the programme is to provide an easy way to pay taxes for certain categories of workers.¹⁹

Creating an entrepreneur account involves several steps which occur automatically upon registration. First, an individual opens an entrepreneur account with LHV Bank. The bank transmits the person’s details, account number, and business income tax amount to the

¹⁷ LHV Bank, “[Entrepreneur account](#)”, 2021.

¹⁸ Tax and Customs Board, “[Entrepreneur Account for natural person](#)”, 4 April 2021.

¹⁹ Tax and Customs Board, “[MTA: Erasisikute vahelist arveldamist lihtsustav ettevõtlikonto kogub populaarsust](#)”, 29 January 2021.

Estonian Tax and Customs Board. The Estonian Tax and Customs Board transfers the taxpayer's data into the register of taxable persons and distributes the business income tax it received among the income tax rate, the social tax rate and pension contributions when applicable. It also shares this information with other government.²⁰

If the income of the entrepreneur is 25,000 euros (roughly 30,300 USD) or less per calendar year, the tax rate applied is 20 per cent of the sum received in the entrepreneur account. If the income is over 25,000 euros, the exceeding amount is subject to a 40 per cent tax rate. If the income exceeds 40,000 euros (roughly 48,500 USD) per calendar year, the entrepreneur must join the commercial register.²¹

An entrepreneur account owner can provide services or sell goods by a verbal contract. However, if necessary, he or she can also conclude a simple written contract containing relevant data on the service provided and/or the goods that were sold. A written expense document may also be a bank account statement, a payment terminal receipt or a cash receipt.

An entrepreneur account owner has the right to receive health insurance benefits if the minimum social tax obligation, 192.72 euros (roughly 235 USD) per month, is fulfilled. This amount is calculated as follows: If a person is operating only through an entrepreneur account to get health insurance, he or she must receive at least 1,606 euros (roughly 2000 USD) per calendar month through the provision of services or sale of goods, from which the business income tax deducted is 321.20 euros (roughly 390 USD) and of which social tax is 192.72 euros.²²

4. Key results/outcome

During 2020, a total of 4.2 million euros (roughly 5 million USD) were received in entrepreneur accounts, of which 860,000 euros (roughly 1 million USD) were paid in taxes. Since the establishment of the entrepreneur account at the beginning of 2019, a total of 6.3 million euros (roughly 7.5 million USD) have been received and 1.3 million euros (roughly 1.5 million USD) have been paid in taxes. By the end of 2020 there were 3,470 active entrepreneur accounts in Estonia.²³

5. Lessons learned

By design, the entrepreneur account has some limitations. For example, users do not have the option to deduct expenses, so an entrepreneur account is not suitable for businesses that have high costs.²⁴

²⁰ Tax and Customs Board, "[Entrepreneur Account for natural person](#)", 4 April 2021.

²¹ LHV Bank, "[Entrepreneur account – FAQ](#)", 2021.

²² Tax and Customs Board, "[Entrepreneur Account for natural person](#)", 4 April 2021.

²³ Tax and Customs Board, "[MTA: Erasisikute vahelist arveldamist lihtsustav ettevõtlikonto kogub populaarsust](#)", 29 January 2021.

²⁴ LHV Bank, "[Entrepreneur account – FAQ](#)", 2021.

Providing services or goods to entities like resident companies, non-profit associations, foundations and religious associations is tied to an additional income tax (rate 20/80), which is similar to the tax burden of a regular employment relationship. This additional tax liability is intended to prevent the routine transfer of an employment relationship to a more favourable entrepreneur account.²⁵

6. Website

LHV Bank

Website: <https://www.lhv.ee/en/>

7. Links

Susan Divald, [*e-Estonia: A digital society for the transition to formality. E-formalization case study*](#), ILO Working paper, 2021.

ILO, "[Promoting employment and decent work in a changing landscape](#)", Report of the Committee of Experts on the Application of Conventions and Recommendations, International Labour Conference, 109th Session, 2020.

²⁵ Tax and Customs Board, "[Entrepreneur Account for natural person](#)", 4 April 2021.

India: Udyam registration portal for MSMEs

Key words: enterprises registration, digital, one-stop-shop, incentives

1. Programme description

In July 2020, the Indian Government launched a new portal to simplify the registration of micro, small and medium enterprises (Udyam). The only information required when registering on the Udyam portal are the business owner's name and identity number (Aadhaar). There are no fees. The entire process is done online and based on self-declaration, which means that there is no need to provide supporting documentation. Upon registration, the business receives a permanent identification number and a registration certificate.²⁶

At the same time, the government created a one-stop-shop website, champions.gov.in, through which entrepreneurs can contact a network of 68 "control rooms" scattered around the country. Control rooms address MSMEs grievances, and provide guidance and information on existing support schemes, Udyam registration and business growth.

2. Institutions

The programme was launched by the Indian Ministry of Micro, Small & Medium Enterprises.

3. Objective and operations

The objective of the Udyam Registration portal is to reduce transaction times and costs of entrepreneurs and to streamline the government's recent change in the definition of MSMEs.²⁷

The registration certificate lists the following information: enterprise type, name, official address, date of registration, start date of production, national industry classification code, and Udyam registration number. At the bottom, there is a dynamic QR code to access details about the enterprise.²⁸

The integration with other government services facilitates registration: for example, enterprise tax information like the Permanent Account number and Goods and Service Tax

²⁶ [Udyam Registration portal](#).

²⁷ According to the new classification, microenterprises are now classified as those where investment in plant and machinery or equipment does not exceed 10 million Indian Rupee (roughly 135,000 USD) and turnover does not exceed 50 million Indian Rupee (roughly 670,000 USD). The Gazette of India, [Notification](#), 2020.

²⁸ Office of Development Commissioner, "[Analysis of Udyam Registration Data, Bulletin-II](#)", 31 December 2020.

number is retrieved automatically from government databases. The Ministry of MSME has also commenced API integration of the Udyam Registration portal with the “Government e-Market Place” that should help MSMEs participate more easily in Government procurement processes.²⁹

Udyam registration is now required for an MSME to avail itself of various benefits schemes of the Ministry of MSME and also to access credit from financial institutions. This is likely to motivate enterprises to register, particularly during the pandemic-related economic downturn.

4. Key results/outcome

As of April 2021, more than 2.5 million enterprises have registered on the Udyam portal.³⁰ However, because the new system replaces former registration methods previously registered MSME are required to re-register with Udyam. The largest number of registrations by far have been recorded in Maharashtra, where 660,000 enterprises signed up, 95 per cent of which were microenterprises. The states of Tamil Nadu, Gujarat, Rajasthan, and Uttar Pradesh also recorded more than 220,000 registrations each. In all but one state, microenterprises made up at least 80 per cent of all registrations.

As of December 2020, more than 60 per cent of registered enterprises were operating in the service sector, compared to almost 40 per cent in the manufacturing sector. In both sectors, food-related activities were the most prominent.³¹

5. Lessons learned

The President of the Chamber of Indian MSMEs remarked that although 2.5 million registrations is a large number, up to 10 million enterprises remained registered in the previous system. The deadline for them to move to Udyam registration was 31 March 2021, yet 7.4 million still had not made the transition to the new system. This puts them at a disadvantage as they will not be able to access priority sector loans. If participation in the new registration system remains low, the government’s effort to group all MSMEs under one programme will have failed.³²

Adequate internet coverage can be an issue in India, where rural areas still do not have the same access as urban areas.³³ The “control rooms” included in the programme as assistance centers and the (pre-existing) District Industries Centres are likely tasked to bridge the gap.

²⁹ Ibid.

³⁰ Ministry of Micro, Small & Medium Enterprises, “[State Wise Udyam Registration Details](#)”, 2021.

³¹ Office of Development Commissioner, op cit.

³² Sandeep Somi, “[Udyam Registration: 26 lakh MSME registrations so far on Modi govt’s new portal not exciting, say experts](#)”, *Financial Express*, 20 April 2021.

³³ Chethan Kumar, “[25 years on, India tops 75 crore Internet connections; 50% of these came in last 4 years](#)”, *Times of India*, 16 November 2020.

However, it is the programme's goal to decrease transaction costs by using online solutions, a goal that will be stymied by continuing digital gaps.

6. **Website**

Ministry of Micro, Small & Medium Enterprises

Website: udyamregistration.gov.in/

Mexico: Concanaco Tablets

Key words: enterprises registration, incentives, MSME

1. Programme description

A Concanaco Tablet is an IT-based tablet provided by the National Committee for Productivity, the Tax Authority (SAT), the Entrepreneur National Institute, and the Confederation of National Chambers of Commerce, Services and Tourism to micro and small enterprises on which entrepreneurs can easily undertake financial and administrative transactions on the goods and services. The tablet was offered to businesses that registered with the Tax Incorporation Regime (Régimen de Incorporación Fiscal), a special business and tax registration regime aimed at business activities whose income is less than 2 million pesos per year. The Tax Incorporation Regime is Mexico's main formalization public programme.³⁴

2. Institutions

The programme was designed as a partnership among the National Committee for Productivity (CNP), the Tax Authority (SAT), the Entrepreneur National Institute (INADEM), and the Confederation of National Chambers of Commerce, Services and Tourism (CONCANACO SERVYTUR).

3. Objective and operations

The goal is to reduce informality and increase productivity in micro and small enterprises through the introduction of ICTs. The total price of the tablet plus the service costs is around 5,600 Mexican pesos (roughly 350 USD). The programme is subsidised by Concanaco and INADEM so the final price for the enterprise is around 800 pesos (less than 50 USD).

The tablet has a Point of Sales (PoS) terminal and internet connection, which is offered free of charge during the first year of use. This enables the entrepreneurs to accept payments via credit and debit card (although cash payments are also possible), create electronic records of their sales, issue formal invoices and track their inventories. The use of these tablets thus makes it easier for entrepreneurs to sell their goods and services, and facilitates invoicing, stock management, bookkeeping and tax declarations. It also includes a modality for the sale of airtime to customers, which is an important way to increase business turnover.

Through their 900 offices all over the country, 256 chambers of commerce affiliated with Concanaco launched a campaign to identify eligible business owners. During the first stage, informal MSEs were identified and sensitized on the costs of informality (e.g. fines and costs

³⁴ Juan Chacaltana, Vicky Leung and Miso Lee, [New technologies and the transition to formality: The trend towards e-formality](#), 2018.

related to work accidents and hospitalization of employees) and on the benefits of formalizing (e.g. access to bank loans and government support services, like training or technology support from INADEM). Upon formalization through the Tax Incorporation Regime, business owners receive the tablet and related technical support. After registration, the enterprises receive assistance on the declaration of taxes and with bookkeeping and inventory services. The targeted enterprises sell grocery, stationery, food, clothing and jewellery, amongst others.

The first tablets were distributed in January 2015.³⁵ It is unclear if the programme is still running in its current form. Allegations have surfaced that Concanaco overcharged the government's Entrepreneur National Institute by 51 million pesos (roughly 2.5 million USD) when buying the tablets, and that entities linked to Concanaco profited from the programme. As of March 2021, an investigation is underway.³⁶

4. Key results/outcome

Concanaco's goal was to hand out 100,000 tablets.³⁷ After one year of operation, the project successfully registered 15,086 enterprises in the Tax Incorporation Regime. The project has verified that 89 per cent of the beneficiaries made tax declarations. Two thousand young people were also included. It is estimated that 25,646 workers have benefited from the project, 45.5 per cent of which were male and 54.5 per cent female.³⁸

Entrepreneurs who participated in the programme highlighted four aspects of Concanaco tablets that they found particularly useful:

- payments with credit and debit cards through the bank terminal
- inventory app
- online billing
- advertising through social networks, as well as the agenda of business appointments through WhatsApp.³⁹

³⁵ Concanaco Servytur, "[Entrega de las primeras 20 Tabletas Concanaco en Pachuca, Hgo](#)", 10 January 2015.

³⁶ Alma Méndez, "[El poblano Enrique Solana investigado por Inteligencia Financiera](#)", 22 March 2021.

³⁷ Ibid.

³⁸ Juan Chacaltana, Vicky Leung and Miso Lee, [New technologies and the transition to formality: The trend towards e-formality](#), 2018.

³⁹ Eduardo Rangel, "[Casos de éxito Tableta Concanaco](#)", 2016.

5. Lessons learned

The inclusion of information technologies in an SME is vital in today's globalized world, not only to increase sales but also to increase productivity and competitiveness. This is expected to lead to a better and more competitive economic environment for firms, and therefore to formality – although the direct linkage has yet to be proven.

Formalization results relate mainly to an increase in business registration and tax declarations. Although the tablet facilitates the formalization of workers, it does not ensure this as registration at the tax office and the social security office takes place through separate processes.⁴⁰

6. Website

Confederación de Cámaras Nacionales de Comercio, Servicios y Turismo

Website: www.concanaco.com.mx/

7. Links

Chacaltana, Juan; Claudia Ruiz; Evelyn Vezza. Forthcoming. "e-formality in Latin America: A More Accelerated Race in a Region Full of Gaps", ILO.

Chacaltana, Juan; Vicky Leung; Miso Lee. 2018. [*New technologies and the transition to formality: The trend towards e-formality*](#), ILO Employment Working Paper.

Video: "[E-formality for enterprise and employment formalization](#)", 2020.

⁴⁰ Juan Chacaltana, Vicky Leung; Miso Lee. [*New technologies and the transition to formality: The trend towards e-formality*](#), ILO Employment Working Paper, 2018.

Paraguay: Pytyvõ 2.0

Key words: Covid-19, enterprises registration, incentive, digital payment

1. Programme description

The government subsidy Pytyvõ 2.0 (Help 2.0) was authorized in August 2020 as a response to protecting the incomes of informal workers during the COVID-19 pandemic. The subsidy amounts to a maximum of 500,000 Paraguayan guaraníes (roughly 76 USD) and can be paid up to four times per person.⁴¹ Up to two people from the same household can apply to receive it. The programme's goal was to reach 700,000 workers.⁴²

Three categories of workers could apply: self-employed workers, dependent workers of Micro, Small and Medium Enterprises and workers who paid social security contributions to the IPS (Social Security Institute) and lost their job when the State of National Emergency was declared. For self-employed workers, the third and fourth payments were conditional on their registration with the tax authority (SET). After the fourth payment was suspended in January 2021, the programme had de facto ended.

2. Institutions

The programme was implemented by the Ministry of Finance, in cooperation with state bodies and entities, including retirement and pension entities.

3. Objective and operations

Registration could take place on the Pytyvõ website or through the app "Pytyvõ Sanitary Emergency Subsidy" available on Google Play. The following information was required: personal details, ID number, photos of the ID, address, names of adult household members and information related to the worker's occupation. The registration form had the legal value of an affidavit.⁴³ After authorities had verified the information, beneficiaries were notified by SMS. Alternatively, they could check the Pytyvõ 2.0 website.

The programme relied primarily on e-wallets for the payment of the subsidy. In Paraguay, a country of 7 million people, there are 2.8 million active e-wallets accounts.⁴⁴ Once the money had been accredited, it could be spent in affiliated stores that accept electronic payments. The subsidy could only be used to buy food, medicine and items that are part of a basket of goods.

⁴¹ See Law N° 6587.

⁴² Agencia de Información Paraguaya, "[Pytyvõ 2.0: Habilitan web y App para que potenciales beneficiarios se inscriban a subsidio](#)", 10 August 2020.

⁴³ Ministerio de Hacienda, "[Te mostramos cómo hacer para inscribirte al programa #Pytyvõ 2.0 a través de la aplicación web](#)", Facebook video, 13 August 2020.

⁴⁴ Agencia de Información Paraguaya, "[Paraguay tiene potencial para dar salto en inclusión financiera, según investigadores](#)", 27 November 2020.

The money could not be withdrawn. Those who did not have an e-wallet could ask to use other methods.

In regard to the formalization aspect of the programme, the Head of the Ministry of Finance explained that recipients would automatically be registered with the “Resimple” tax regime upon using the money of the third payment.⁴⁵ The Resimple tax regime introduced in 2019 aimed to formalize the self-employed sector and proposed simplified income declaration measures for workers and businesses that earn less than 80 million Paraguayan guaraníes per year (roughly 12,100 USD).⁴⁶

During the adjustment period, recipients could modify and update their information. After a grace period, the assumption is they want to formalize and will begin to pay taxes in 2022 based on what was sold in 2021. If workers do not request the activation, they will be automatically discharged from the system in 2023.⁴⁷

4. Key results/outcome

With regard to formalization, the tax authority reported in December 2020 that 450,000 people had been registered automatically. However, their status is marked as inactive and will remain so until they begin to operate and generate income.⁴⁸

5. Lessons learned

Mandatory tax registration did not deter people from requesting the third Pytyvõ 2.0 payment. Compared to the second one, there was only a 2 per cent decline in the number of recipients.⁴⁹

Because the last step of formalization requires an active interest from the workers, there is a chance that some of them will not take the necessary steps and will eventually leave the system. It is possible that some workers accepted to be registered because they had no other sources of income during the pandemic. It is also possible that some workers had not been aware that registration was going to occur at all, since the first two payments did not carry that obligation.

⁴⁵ ABC Color, “[Quienes cobren Pytyvõ 2.0 estarán inscritos automáticamente en el Resimple](#)”, 14 December 2020.

⁴⁶ Agencia de Información Paraguaya, “[Inicia tercer pago de Pytyvo 2.0 para más de 200.000 trabajadores del sector informal](#)”, 23 December 2020.

⁴⁷ Última hora, “[Base tributaria se disparó con Pytyvõ, pero el 43% se encuentra inactivo](#)”, 10 January 2021.

⁴⁸ ABC Color, “[SET tiene registrados a más de 1.314.000 contribuyentes](#)”, 5 January 2021.

⁴⁹ Dirección general de Presupuesto – SEAF, [Paraguay ante la Pandemia: ¿Qué se está haciendo?](#), May 2020.

6. Website

Ministerio de Hacienda

Website: hacienda.gov.py/

7. Links

ILO, [*Paraguay: Impacts of COVID-19 on employment and income generation*](#), 2020.

ILO, [*2020 Labour Overview in times of COVID-19: Impact on the labour market and income in Latin America and the Caribbean*](#), Second edition, September 2020.

Peru: Electronic payroll

Key words: digital payroll, compliance, incentive

1. Programme description

In Peru, the government requires private business to report payroll information. These payrolls form the basis for calculating the index of registered employment and the workload of the labour inspection system. In 2006, the government created the Electronic Payroll, an electronic solution to replace the manual reporting of private business payrolls. The objective was to seek more efficiency regarding the information on workers registered.⁵⁰

In an agreement signed between the Ministry of Labour and Employment Promotion and the National Superintendency of Customs and Tax Administration (SUNAT), three major changes to the payroll registry system were introduced:⁵¹

- payroll information is sent virtually, not physically;
- with virtual transmission, information can be sent monthly instead of annually;
- information is sent not only to the Ministry of Labour and Employment Promotion but also to the tax authority, together with additional information required by the tax authority (sales, profits, etc).

2. Institutions

The electronic payroll was introduced by Law Nr. 018-2007-TR.⁵² It is a joint project of the Ministry of Labour and Employment Promotion and the National Superintendency of Customs and Tax Administration (SUNAT).

3. Objective and operations

Law Nr. 018-2007-TR lists three main goals: reduce the costs incurred by employers in keeping their payroll, manage payroll information more efficiently, and optimize labour inspections.

The electronic payroll has two components:

- T-Registro is the Labour Information Registry of employers, workers, retired workers, service providers, personnel in job training, third-party personnel and family members of workers. It includes information on labour, social security and other relevant data on

⁵⁰ Juan Chacaltana, Juan, Vicky Leung and Miso Lee, "[New technologies and the transition to formality: The trend towards e-formality](#)", 2018.

⁵¹ Ibid.

⁵² [Law Nr. 018-2007-TR](#). 2007.

the type of income of the registered subjects.⁵³ T-Registro is a web application that is accessed through the tax authority website.

- The Monthly Payroll (PLAME) is mandatory and includes information on income compensation for those registered in the T-Registro, including third-party providers of services, information on days worked, hours worked and tax deductions.⁵⁴ PLAME is a software that communicates with the tax authority through the internet.

As a system, the electronic payroll eliminates the transaction costs associated with the maintenance, transmission, storage and risk of loss of payroll books. For workers, the system brings clarity and documentation of an employment relationship. All employers hiring at least one worker are obliged to report their electronic payroll.⁵⁵ Failure to report information correctly, fully and on time carries a fee.⁵⁶

4. Key results/outcome

According to a study, the use of the electronic payroll has allowed the Ministry of Labour and Employment Promotion to reach more businesses than before.⁵⁷ In the previous system, some 26,000 firms were registering payrolls every year to the Ministry of Labour and Employment Promotion. That number increased to more than 200,000 firms after the introduction of the electronic payroll, the same number of firms traditionally reporting to the tax authority.

According to ILOstat data,⁵⁸ the share of informal employment in Peru decreased from 79.2 per cent in 2007 to 68.4 per cent in 2019. However, current data from the Ministry of Labour and Employment Promotion shows that the number of formal workers in the private sector has not significantly increased. In January 2014, 3 million formal workers in the private sector were recorded compared to 3.4 million recorded in January 2021.⁵⁹ The take-away is thus that the digitalization of payrolls alone is not sufficient to eliminate informal employment.

5. Lessons learned

Every month, firms are required to send a list of their workers to the electronic payroll. However, it has been observed that some firms stop providing such information despite

⁵³ National Superintendency of Customs and Tax Administration (SUNAT), "[T-Registro - Concepto](#)", 2021.

⁵⁴ Juan Chacaltana, Vicky Leung and Miso Lee, op cit.

⁵⁵ Ibid.

⁵⁶ National Superintendency of Customs and Tax Administration (SUNAT), "[Multas e Infracciones](#)", 2021.

⁵⁷ Juan José Díaz, "Formalización empresarial y laboral" in R. Infante and J. Chacaltana (eds.): [Hacia un desarrollo inclusivo en Perú](#), CEPAL and ILO, 2014.

⁵⁸ ILOstat, "[Informal employment rate by sex \(%\) - Annual](#)".

⁵⁹ Ministerio de Trabajo y Promoción del Empleo, "[Trabajadores asalariados privados formales](#).", 2021.

remaining active. Low levels of enforcement likely influence firm compliance.⁶⁰ This undermines the programme's objective to collect detailed labour information.

It is possible that some workers are unaware of the non-compliance of their employers. In 2021, SUNAFIL launched a new service called "Verifica tu chamba" (Verify your job). It allows workers to anonymously check online if they are registered on the electronic payroll. If they are not found, the system automatically sends a reminder email to their employer. Between January and March, more than 35,000 people were added to the electronic payroll after checking their status on "Verifica tu chamba".⁶¹

6. Website

National Superintendency of Customs and Tax Administration (SUNAT)

Website: <https://www.sunat.gob.pe/>

7. Links

The case study is mentioned in the following materials:

- Papers:
Chacaltana, Juan, Claudia Ruiz and Evelyn Vezza, "e-formality in Latin America: A More Accelerated Race in a Region Full of Gaps", ILO, forthcoming.

Chacaltana, Juan, Vicky Leung and Miso Lee, "[New technologies and the transition to formality: The trend towards e-formality](#)", 2018.
- Video:
[The Electronic Payroll system in Peru](#), 2019.

⁶⁰ Juan José Díaz, Juan Chacaltana, Jamele Rigolini and Claudia Ruiz, "[Pathways to Formalization: Going beyond the Formality Dichotomy](#)", 2018.

⁶¹ El Peruano, "[Más de 67,000 trabajadores fueron incorporados a planilla en lo que va del 2021](#)", 16 March 2021.

Uruguay: BPS Domestic Worker Registration

Key words: domestic workers, digital payroll, incentives, compliance

1. Programme description

To increase domestic worker formalization and simplify payments, Uruguay's Banco de Previsión Social (BPS) implemented an automatic online system that can be accessed by employers of domestic workers through a dedicated portal or a mobile app, *BPS Trabajo Doméstico*. With the app, employers who have a BPS user ID can easily register a domestic employee, pay salaries, taxes and social security contributions.

The system automatically carries out invoicing after validating the payroll and calculates different remuneration items and the corresponding contributions. From the nominal salary declared by the contracting party (per day, hour or week) it determines premiums and bonuses and calculates social security contributions.⁶² The integration with other agencies is particularly useful: upon registration of the domestic worker, insurance is automatically taken out for work accidents and occupational diseases.⁶³ To facilitate the use of online services, BPS also created a dedicated information section on its website that provides resources for employers and employees on domestic work.

2. Institutions

The initiative was started by the Banco de Previsión Social in cooperation with the Agency for Electronic Government and Information and Knowledge Society (AGESIC).

3. Objective and operations

Uruguay has been a pioneer in the protection of domestic workers.⁶⁴ In 2006, the country passed Law 18.065 to regulate domestic work. The Law set a firm foundation for subsequent policies like the introduction of collective bargaining, minimum wages, workplace inspections and improved social security rights for domestic workers. The simplification of domestic worker registration took place within this context.

⁶² Asesoría General en Seguridad Social, [Trabajo doméstico remunerado en Uruguay. Actualización de informe](#), 2019.

⁶³ BPS, "[Cobertura del Banco de Seguros del Estado](#)", 2021.

⁶⁴ ILO, [E-Formality. Domestic Work. Uruguay](#), 2019.

An employer who wishes to hire a domestic worker needs to first register with BPS, either in person at 500 locations around the country, or online. Upon registration, the employer can enroll the domestic worker.

The app allows employers of domestic workers to do the following online:

- Look up billing, due dates, last payment
- Register and deregister workers
- Modify information on workers (wage, personal data)
- Pay the corresponding bill for the pension system

Various means are available to facilitate the payment of obligations: online payments, direct bank debit or decentralized collection agents.

4. Key results/outcome

The mobile app *BPS Trabajo Doméstico* was launched in 2014 and has been downloaded more than 10,000 times to date.⁶⁵ Employer registration of domestic workers in Uruguay has increased by 67 per cent in the period 2006 to 2018.⁶⁶ Domestic workers' social security contributions have also increased steadily: the amount collected in 2018 (61.5 million pesos) was double that of 2009 (30.3 million pesos). Payments to the Banco de Seguro del Estado (State Insurance Bank), which cover work accidents, also increased by 31 per cent between 2014 and 2018.⁶⁷

5. Lessons learned

Reforms of domestic work in Uruguay have been consistently supported by widespread information campaigns aimed at familiarizing the public with workers' rights. This multichannel approach involves TV, radio, brochures and websites. Employers and domestic workers can also take advantage of a dedicated section on the BPS website, which provides information material like guides, video tutorials and chatbot.

Despite the very good results achieved in other areas, tax evasion is still an issue. Tax evasion decreased from 60 per cent in 2006 to 24 per cent in 2017, but there is space for improvement. In Uruguay, 89 per cent of people are internet users and 97 per cent of households have a computer, which has been a factor in the success of the app.⁶⁸ Other countries with lower levels of digital literacy and/or insufficient internet coverage might find lower take-up on the app-linked registration of domestic workers.

⁶⁵ Google Play, "[BPS Trabajo Doméstico](#)", 2021.

⁶⁶ ILO, *E-Formality. Domestic Work. Uruguay*, 2019.

⁶⁷ Asesoría General en Seguridad Social, *Trabajo doméstico remunerado en Uruguay. Actualización de informe*, 2019.

⁶⁸ ILO, *E-Formality. Domestic Work. Uruguay*, 2019.

6. Website

Banco de Previsión Social (Social Protection Bank)

Website: <https://www.bps.gub.uy/>

7. Links

ILO. 2019. [*E-Formality. Domestic Work. Uruguay.*](#)

Chacaltana, Juan, Vicky Leung and Miso Lee. 2018. [*New technologies and the transition to formality: The trend towards e-formality.*](#)