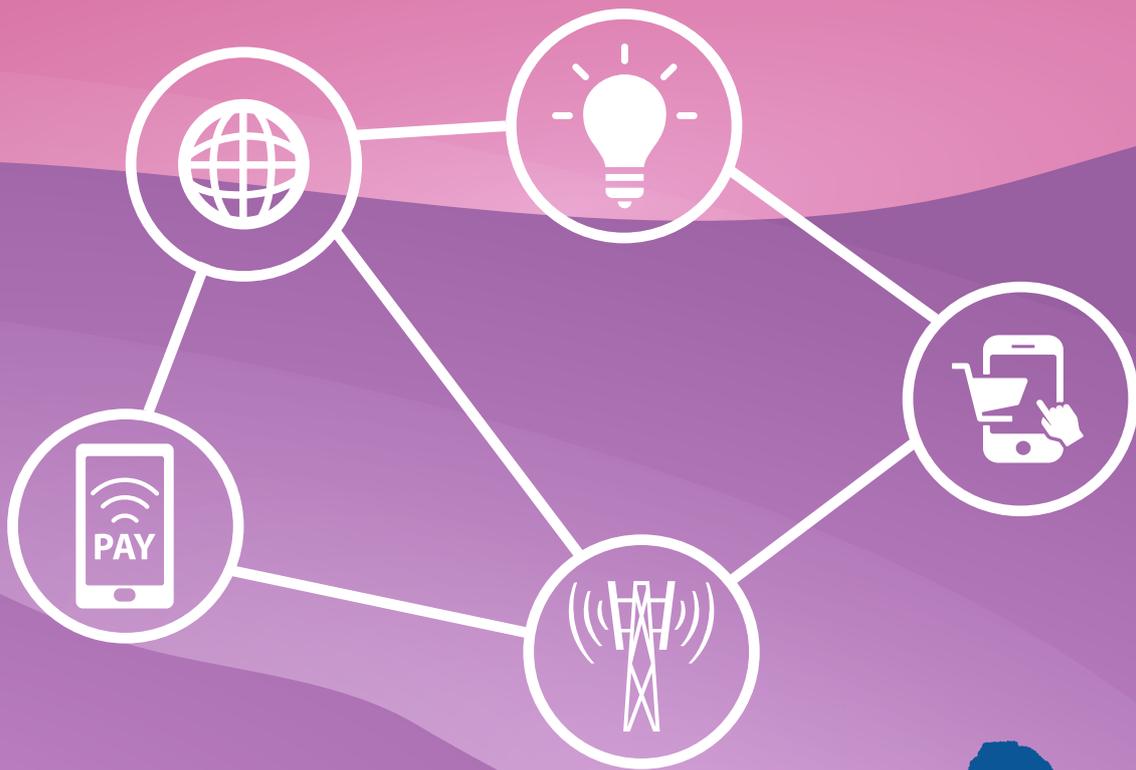


# Prospects for Social Justice and Sustainable Development

Young Entrepreneurs' Perspectives on Digitalisation

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## Abbreviations

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<b>ACP</b>	African, Caribbean and Pacific Group of States	<b>FY</b>	Fiscal Year
<b>AI</b>	Artificial Intelligence	<b>GDP</b>	Gross Domestic Product
<b>CRO</b>	Company Registrar Office	<b>ICT</b>	Information and Communication Technology
<b>CTA</b>	Technical Centre for Agriculture and Rural Cooperation	<b>IoT</b>	Internet of Things
<b>DCSI</b>	Department of Cottage and Small Industries	<b>IPR</b>	Intellectual Property Rights
<b>DoCSCP</b>	Department of Commerce, Supplies and Consumer Protection	<b>IRD</b>	Inland Revenue Department
<b>DoI</b>	Department of Industry	<b>ML</b>	Machine Learning
<b>DoIT</b>	Department of Information Technology	<b>NPC</b>	National Planning Commission
<b>EU</b>	European Union	<b>NRB</b>	Nepal Rastra Bank
<b>FGD</b>	Focus Group Discussion	<b>NYEF</b>	Nepalese Youth Entrepreneurs' Forum
		<b>RIMS</b>	Registration Information Management System
		<b>VAT</b>	Value Added Tax

# Executive summary

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Digitalisation can act as an enabler in fostering youth entrepreneurship in developing Nepal's economy, which is marred by persisting unemployment, structural inefficiencies and policy bottlenecks. Taking an exploratory and descriptive approach, this paper weighs on the possibilities and constraints for digitalisation and youth entrepreneurship in Nepal. Its findings build on a telephonic survey with 155 youth respondents from all seven provinces followed by focus group discussions (FGD) with youth entrepreneurs from Nepalese Youth Entrepreneurs Forum (NYEF) and Chamber of Commerce. Individual in-depth interviews were carried out with government officials from Company Registrar Office (CRO), Department of Industry (DoI) and Department of IT (DoIT).

Findings suggest that digitalisation has acted as equalizer by means of promoting transparency for majority of entrepreneurs. There is a sense of optimism with increasing use of e-payment transactions (especially,

post COVID-19), though these are largely limited to the urban segments. Paperless governance and automation have not been fully functional on the government side due to structural bottlenecks and capacity constraints. Loopholes in existing policies and lack of awareness on the side of the entrepreneurs have acted as additional barriers to digitally enabled youth entrepreneurship.

Given the current state of digital infrastructure and digital divide, creating an eco-system for facilitating youth entrepreneurship through digital processes requires collective efforts from all concerned stakeholders. Therefore, this paper provides policy recommendations to the Government of Nepal to promote youth entrepreneurship and to encourage digitalisation by means of amendment of existing policies and incorporation of new initiatives.



# Introduction

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Entrepreneurship, digitalisation and youth are in many senses connected. Youth often have state-of-the-art knowledge, creativity and enthusiasm which makes them more likely than others to venture into new businesses. In Nepal, 54.5 per cent of entrepreneurs are youths (Prasain, 2021b).<sup>1</sup> As a generation exposed to technological advancement from an early age, young people are more likely to be better versed in modern technology as well as integrating digital tools and services into their businesses.

The initiation and expansion of entrepreneurship is always positively correlated to the innovation and adoption of the latest technology. The information technology, which is now in the phase of extensive digitalisation across the board, is increasingly proving to be an essential condition to start, operate and sustain any form of business. The rate and scale of diffusion of modern technologies and the pace of digitalisation have become key determinants to entrepreneurship. Therefore, economy-specific growth and prosperity have been connected to access and usage of digital technology.

Digitalisation is linked to entrepreneurship or businesses in three main ways. First, as evidenced by the universal expansion of information and communication technology (ICT) as industry, digitalisation is becoming an enterprise with its knowledge and skills used for commercial purposes. Second, digitalisation has become an integral component to facilitate all other forms of businesses that produce, brand and sell goods and services. Emerging trends of e-market, e-payment and virtual platforms of brand promotions is forcing new buyers and sellers to switch to digital platforms to promote their businesses. Third, the economy-specific digital ecosystem, more precisely its extent of growth and potential, supports to create overall business environment which, in turn, is contingent to the success or failure of businesses in any economy, be it national, provincial or municipal level. Effective entrepreneurial education, responsible and resourceful data use, and inclusive digital platforms are thus the three most important dimensions for a digitized entrepreneurial ecosystem (Global Future Council on Entrepreneurship, 2019).

The role of youth entrepreneurship in innovation and economic change goes undisputed. Digital

technologies supported by youth-led enterprises are more resilient both economically and socially. With the onset of the COVID-19 pandemic many businesses made use of virtual platforms and consumers relied on digital platforms for goods and services. Evidently, young people were on the forefront in doing so (Prasain, 2020).

## Research approach and methodology:

The study primarily looks into the factors that either hinder or facilitate youth entrepreneurship with regards to digitalisation in Nepal. It also examines current policies of the government of Nepal and explores factors responsible for creating a supportive eco-system that encourages youths towards entrepreneurship. Finally, the study outlines some practical recommendations to foster digitalisation and enable youth entrepreneurship.

The study uses exploratory and descriptive analysis including utilisation of essential components of quantitative results. A primary survey of 155 selected young entrepreneurs aged 16-40 and having a minimum of two to three years of entrepreneurship experiences was undertaken. The survey included respondents from seven provinces of Nepal. Questionnaires for the survey were devised in the form of five point rating scale. In addition, focus group discussions were conducted with young entrepreneurs from Butwal and Chitwan chapter of NYEF and members of Chamber of Commerce in Dang and Hetauda. Besides, in depth interviews were organised with government officials at CRO, DoI, DoIT and Department of Commerce, Supplies and Consumer Protection (DoCSCP) as well as with some established entrepreneurs.

For the purpose of this study, digitalisation is defined and understood as the "transformation of existing socio-technical structures previously mediated by non-digital artifacts or relationships into ones that are mediated by digitised artifacts and relationships" (Yoo and others, 2010). It includes any form of digital technologies, digital platforms, and digital infrastructures that have power and potential to transform entrepreneurship in significant ways.

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<sup>1</sup> In Nepal, citizens within the age of 16-40 years are called youths (Nepal Ministry of Youth and Sports, 2015b).

# Digitalisation and Entrepreneurship

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Digitalisation today is one of the most hyped and visible trends that has transformed the way trade and business operates. A plethora of diverse digital technologies enabling digitalisation in businesses have come into existence which include but are not limited to 5G, Artificial Intelligence (AI), Machine Learning (ML), big data analytics, blockchain, Internet of Things (IoT), Industrial IoT, social media, digital supply chain, augmented and virtual reality, search engines, scanners, sensors, biometrics, cloud computing, 3D printing, e-payment, drones, digital devices, and numerous other software and hardware technologies.

The universal proliferation of digitalisation – especially through increasing access to the internet – has created new opportunities for commercialization of these technologies. It also has provided new means for production and service. The increase in customer base and spending in digital enterprise also highlights the impact of digitalisation.

The increasing usage of digital technologies has transformed the traditional ways of pursuing entrepreneurship, transformed the nature of uncertainty inherent in the entrepreneurial process and modified the lines between product and processes (Thomas, Passaro, and Quinto, 2019). Simon-Kucher and Partners (2019) surveyed 1,650 companies across major industries in over 30 countries and reported that 74 per cent of companies were spending money on digitalisation initiatives, while 49 per cent saw visible impacts on their revenues as a result.

Aligishiev and Gravesteijn (2020) found that most of the ventures and enterprises started by youth in South Asia and South-East Asia used digital platforms for marketing, sales and other business operations. Social media as well as online marketplaces and tools like Google Ads, Mailchimp and Content Studio have been supporting marketing activities and customer outreach.

Besides, digital platforms have also been useful in reinventing agriculture, education and the health sector.

A case study by Brand and Galdava (2019) emphasized that digitalisation in agriculture has registered dramatic improvements in India. It produced several beneficial results such as greater precision in agriculture, impressive financial inclusion, improved data collection and analysis, and more effective dissemination of information. For example, ITC's<sup>2</sup> e-Choupal has transformed rural agriculture and empowered four million farmers in over 35 thousand Indian villages. The initiative that has been designed to tackle challenges posed by fragmented farms and weak infrastructures leverages information technology to virtually cluster all value chain participants and eliminate wasteful intermediation, thereby reducing transaction costs (ITC, 2020). Similarly, the Technical Centre for Agriculture and Rural Cooperation (CTA), a joint international institution for the African, Caribbean and Pacific Group of States (ACP) and European Union (EU), are modernizing sub-Saharan African agriculture by providing digital agri-solutions for better supply chain management and financial access (Tsan and others, 2019).

Another qualitative survey conducted among 64 young entrepreneurs in sectors like health, education, financial services, and agriculture from member countries of Association of South-East Asian Nations (ASEAN)<sup>3</sup> and South Asian Association for Regional Cooperation (SAARC)<sup>4</sup> showed that young entrepreneurs were more interested in advanced technologies like blockchain, AI and ML than established business owners who relied on conventional technologies such as social media and digital banking services (Aligishiev and Gravesteijn, 2020). In addition, youth entrepreneurs rely on digital solutions like resource planning software, online portals, online collaborative platforms, corporate and messenger video conference platforms, real time data analytics platforms to increase the operational efficiency as well as the efficacy of human resources. Young entrepreneurs are, therefore, generally keener to adopt digitalisation in making businesses user-friendly and seize new opportunities to connect to global value chains (Marasini,

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<sup>2</sup> ITC is India's leading fast moving consumer goods marketer. ITC's e-Choupal is a village internet kiosk (special hardware and software designed to offer public services to people).

<sup>3</sup> ASEAN includes Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam.

<sup>4</sup> SAARC includes Afghanistan, Bangladesh, Bhutan, India, Nepal, Maldives, Pakistan and Sri Lanka.

2019).

### **Avenues for Nepali young entrepreneurs**

The encouraging pace at which the business in Nepal has been advancing towards digitalisation during the pandemic shows that digitalisation is here to stay. Karobar (2020), an economic daily, reported more than 100 young entrepreneurs integrated digital technologies to keep their business operating during the pandemic. Urban Girl, for example, is an e-commerce platform leveraging digitalisation for greater outreach and sales. Nikita Acharya, Chief Executive Officer and Co-Founder of Urban Girl, shared that her business registered 60 per cent growth in digital transactions after the lockdown period.<sup>5</sup> Other success stories include online shopping portals like Gyapu.com, Thulo.com, Bardan online store and Online Bhatti. Most of these startups received a huge push during the pandemic and consequently made growth into companies worth millions of Nepalese Rupees in less than a year.

Another avenue with such potential for digitalised entrepreneurship in Nepal is agriculture. AgriClear, a mobile-based system that uses distributed ledger technology to track good agricultural practices, is one of a few examples where blockchain based supply chain tracking systems has been used as a boost to agricultural services (AgriClear, 2020). The app is part of Rumsan Group of Companies, a digital innovation company led by a team of young entrepreneurs. The app, on one hand, facilitates agro-traders to develop brand value and trust with end-customers and, on the other hand, provides customers a transparent product history by providing details such as origin, cooperative name, pluck date, distribution date, food mile, packaging date and so on (Himalayan News Service, 2020).

Another notable avenue that has largely benefited from digitalisation in Nepal has been the management of corporate treasuries. Digitalisation has enabled treasury function to contribute to agility and innovation (Siddhi, 2020). The development of payment systems like interbank payment, real-time gross settlement and instant payment capabilities have changed the management of working capital. The brewing partnership between banks and financial technology companies have transformed corporate payment system. The adoption of automation and use of shared service centers to process payment and reconciliation are bound

to add pace to the process of digitalisation in corporate treasuries. The current developments in Nepal are

therefore pointing towards the fact that the eco-system for digitalisation is catching up and gaining momentum.

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<sup>5</sup> Based on conversation of the author with Nikita Acharya in Oct-Nov 2020.

# Digital Infrastructure and Access in Nepal

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Nepal has started its journey into a more digital economy in terms of exchange of goods and services, social interactions and public administration. Digital Nepal Framework 2019, which aims at unlocking digital growth in eight key sectors including agriculture, health, education, energy, tourism, finance and urban infrastructure and connectivity, is a milestone towards this end. However, implementation of such an ambitious plan requires digital infrastructure and access.

One of the pre-requisites for digitalisation is **internet connectivity**. A global index report published by Ookla, a US-based firm that analyzes internet connection speeds, has ranked Nepal at 111<sup>th</sup> position in the world with an average fixed broadband speed of 24.05 mbps (global average is 96.43 mbps) (Republica, 2021). Despite the ranking way below global average, Prem Sharan Shrestha, deputy director of DoIT, claims that there have been noticeable improvements like a four-fold increase in internet bandwidth consumption in the last five years.<sup>6</sup> Moreover, he asserts that the government has expanded its cloud to ensure uniformity in its functioning. The department is also forming a National Knowledge Park to provide unified high speed network backbone and facilitate the leap towards digitalisation.

**Electronic payment gateways** are another important infrastructure when it comes to digital economy. According to Nepal Rastra Bank (NRB), there has been a significant increase in users of payment platform such as Connect IPS (98 per cent), internet banking (34 per cent), mobile banking (32 per cent) and QR payment (35 per cent). Moreover, the volume of transactions has also increased by 87 per cent, 104 per cent, 56 per cent, and 64 per cent respectively (NRB, 2020). While domestic payment gateways have seen a boost, many young entrepreneurs for a long time have been struggling with international payments and, thus, connecting to global markets. Companies were forced to make payments on social media informally through their relatives abroad or through agencies in India (Ghimire, 2020b). Only

recently, NRB made arrangements for making payments of up to 500 USD for foreign goods and services through electronic means.

While there has been an increase in the rate of adoption of digital payment systems, security concerns relating to the management of these online portals has always been a key concern for consumers. Biplov Singh, co-founder of Aeroroots, admits that consumers are more inclined towards cash on delivery and are hesitant of making online payments.<sup>7</sup> If it was not for the pandemic, many consumers would still have continued preferences for physical currencies and printed invoices (Lamichhane, 2020). It is therefore imperative for the government as well as businesses to work towards building trust among consumers to encourage use of digital payment systems.

Another factor in providing an enabling environment for entrepreneurship is the **digitalisation of administrative and procedural processes**. Most government offices have now introduced online portals for registration and services. Pradip Adhikari, Registrar in the Office of the Company Registrar, claims that with the introduction of Registration Information Management System (RIMS) 150-200 companies can now be registered in a single day.<sup>8</sup> Highlighting the positive developments, Jiblal Bhusal, Director General for the DoI, claims his department stands at 60-40 ratio when it comes to digitalisation of paperwork.<sup>9</sup> Moreover, digitalisation in tax administration, including online tax registrations, e-payment of taxes and e-filing of tax returns, have helped businesses with computerized Value Added Tax (VAT) returns and Audit Trail Report. While the government made a far-reaching claim in the Digital Economy Conclave 2020 that 70 per cent of the government offices were working online (Karki, 2020), the realities on the ground seem to be quite different. Entrepreneurs believe that the rate of adoption of digitalisation has been encouraging, however, the implementation is yet not adequate. Respondents shared that they encountered incomplete

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<sup>6</sup> Based on conversation of the author with Prem Sharan Shrestha in Oct-Nov 2020.

<sup>7</sup> Based on conversation of the author with Biplov Singh in Oct-Nov 2020.

<sup>8</sup> Based on conversation of the author with Pradip Adhikari in Oct-Nov 2020.

<sup>9</sup> Based on conversation of the author with Jiblal Bhusal in Oct-Nov 2020.

processes in registration and, therefore, are bound to visit the Registrar office in person for issues related to copyrights, trademarks, certificates and so on. Moreover, they do not find the website and information provided to be user-friendly. More often, especially during peak service season, websites often crash or there are problems in the server connection. Despite the availability of online services, many entrepreneurs need to physically visit the office in person for many administrative processes.

In addition, non-existence of relevant institutions as well as their relative inefficiency is cited as one of the

primary institutional barriers. Entrepreneurs feel that the government is not doing much in terms of **institutional support on digitalisation** (see figure 1). Responding entrepreneurs reported obstructions caused by structural inefficiencies such as unskilled and incompetent workforce, system failure, software issues etc. Also, respondents have reported that they receive little digitised support from government officers (see figure 2). There have been instances when the entrepreneurs had to face a lot of hardships due to a lack of awareness about the nature of business and the regulations on the part of the authorities concerned. They suggest that policy makers themselves first need to update their

Figure 1: Entrepreneurs view on the institutional support to facilitate digitalisation in entrepreneurship

Source: Findings from telephone survey conducted in 2020.

**Is the institutional support to facilitate digitalisation in entrepreneurship adequate?**

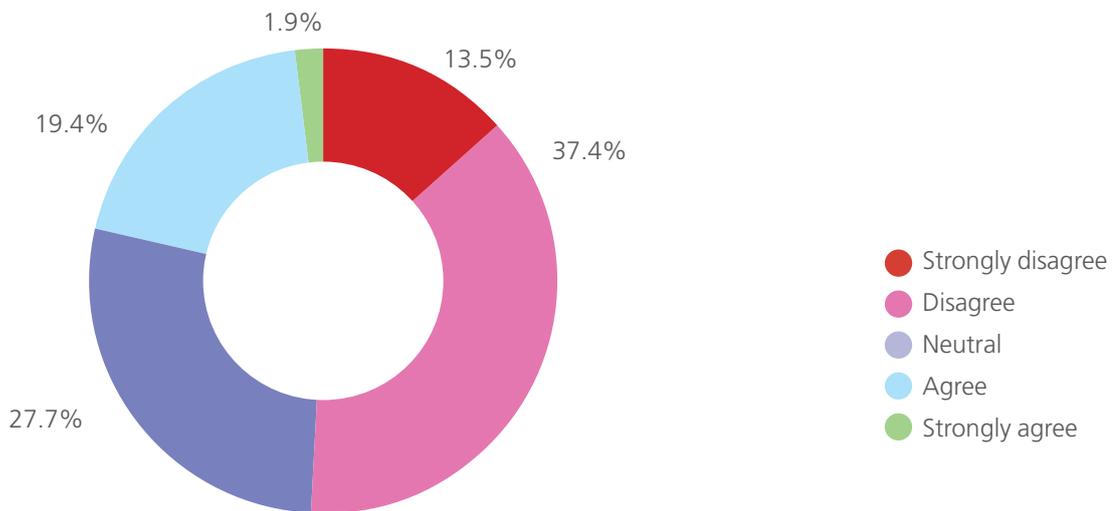
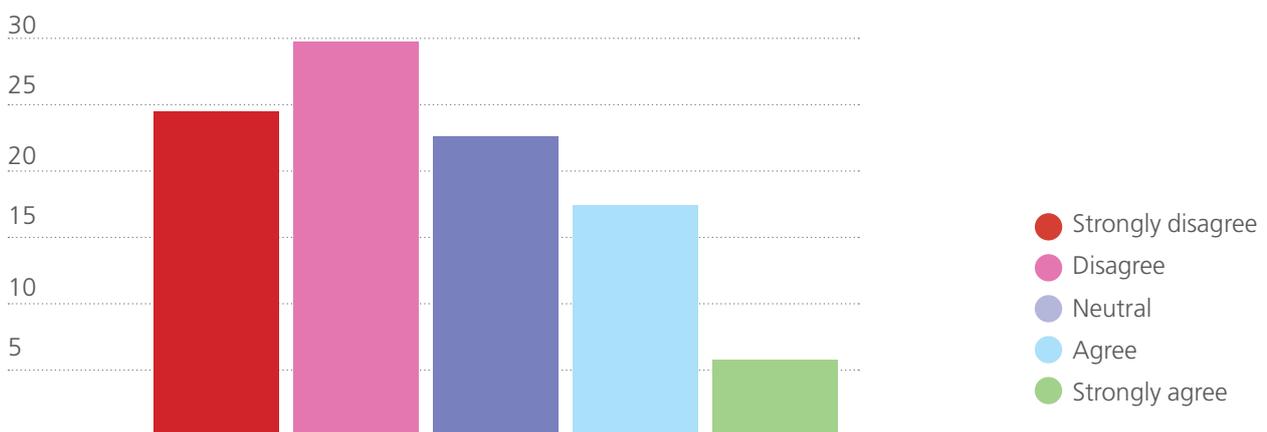


Figure 2: Entrepreneurs' opinion on received digitized support during registration process

Source: Findings from telephone survey conducted in 2020.

**Have entrepreneurs received digitised support while registering/initiating their companies?**



knowledge regarding the technological advancements that are taking place in rapid pace. They contend that such an awareness is preliminary for being able to devise new and updated policies to better facilitate digitalisation-enabled enterprises.

Another factor over which government officials and e-commerce entrepreneurs clash about is the **missing clarity on the nature of e-commerce business.**

Entrepreneurs assert that they have to deal with unclear regulations such as insurance protection of delivery staff, liability of damaged goods, charges, billing, return and refund issues. Niket Agrawal, co-founder of Bhojdeals, believes that there is no clarity on e-commerce registration from the side of policy makers. He adds that there needs to be a one-window-policy like that for foreign investors to guide local investors.<sup>10</sup> However, the government seems to take a rather different stance. Netra Prasad Subedi, Director General of DoCSCP, stresses that many entrepreneurs are running e-commerce businesses haphazardly and without proper registration.<sup>11</sup> A policy framework to regulate what constitutes e-commerce could solve these clarity issues, but the bill is stuck for approval in the parliament. Moreover, e-commerce in Nepal will be able to realize its full potential only when it can successfully deal with challenges involving cross-border money transfers, transportation and distribution, restrictions on foreign direct investment inflows especially into the retail sector, that are emanating from an outdated legal and regulatory framework (UNCTAD, 2017).

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<sup>10</sup> Based on conversation of the author with Niket Agrawal in Oct-Nov 2020.

<sup>11</sup> Based on conversation of the authors with Netra Prasad Subedi in Oct-Nov 2020.

# Policy Analysis

The government usually asserts the latest trends in the field of digitalisation to be encouraging as there have been several policy changes and developments in the sphere of digitalising the economy. However, young entrepreneurs feel government policies either are barely investor friendly or have implementation gaps (see figure 3).

## New and amended policies for promoting and strengthening digitalisation and entrepreneurship

The **National Information and Communication Technology (ICT) Policy 2015** is premised around the vision of transforming Nepal into an information and knowledge-based society and economy. It includes 21 strategies for creating intensified development and growth of ICT sector in relation to human resource, education and research, access and content, government services, small and medium enterprises (SMEs), cloud computing and others (Nepal DoIT, 2015). The policy specifically encourages SMEs to adopt and apply ICT to develop their business online. However, these strategies have been barely materialized as there have been no work plan laid out for its implementation. To many entrepreneurs, these policies seem more like a political statement rather than being translated into policies, programs and budget.

According to **Youth Vision 2025**, Nepal government aims to involve young skilled human resources in introducing digitalisation in agriculture, health, tourism

and services (Nepal Ministry of Youth and Sports, 2015a). In respect to youth and IT entrepreneurship, it aims to provide special assistance and concessions to young people for modernization of economic sector and development of technology. For creating dignified employment, developing research and information technology, the Ministry aims to build necessary infrastructure including a youth consultation service and information center. Additionally, there are also plans to organize information technology festivals to encourage both foreign and local IT investments. However, yet again, implementation of these strategies and priorities is lagging. More than five years after adoption, there have been no concrete action plans in place and no real progress made.

Another major policy instrument is the **Digital Nepal Framework 2019**. Based on the foundation of National ICT Policy 2015, National Broadband Policy 2015 and Electronic Transaction Act 2010, the Digital Nepal Framework is designed to enable Nepal to harness its growth potential by leveraging disruptive technologies and driving socio-economic growth and is expected to deliver an impact of up to NPR 800 billion by 2022 (see figure 4).

The framework brings together 80 digital initiatives for unlocking growth potential in agriculture, healthcare, education, energy tourism, finance, urban infrastructure and connectivity (see table 1). The framework stresses

Figure 3: Young entrepreneurs' reception of policies

Source: Findings from telephone survey conducted in 2020.

### Are there policies in place to speed up digitalisation for entrepreneurship?

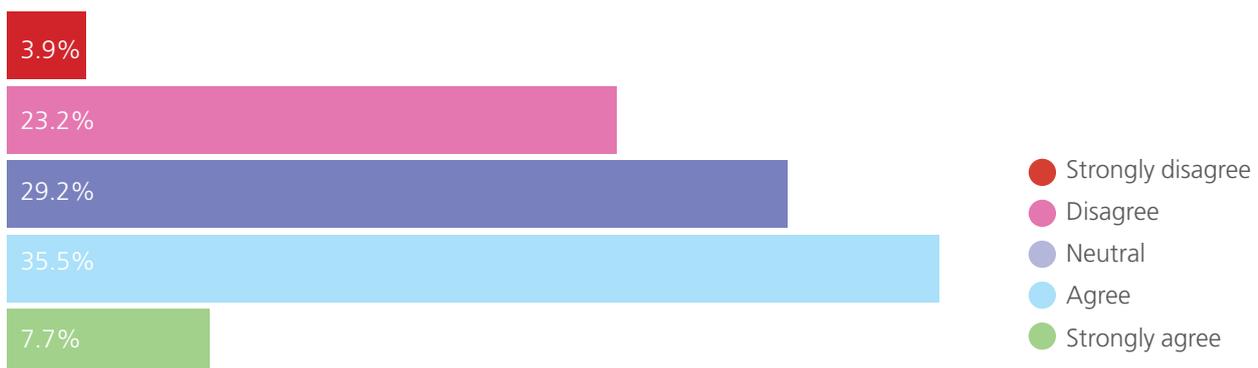


Figure 4: Nepal Gross Domestic Product (GDP) growth forecast until 2022

Source: Frost and Sullivan, 2019.



on developing technology and infrastructure and encouraging public private partnership and foreign investments. It also aims at improving digital talent and

skills to create an enabling environment for successful implementation of these initiatives.

Table 1: Digital initiatives outlined by Digital Nepal Framework

Source: Frost and Sullivan, 2019.

<b>Agriculture</b>	20. OLE Nepal 2.0	41. ARVR
1. E-haat bazaar	21. Online learning platform	42. Electronic tour guides
2. Precision agriculture	22. Rent-a-laptop program	43. Omnichannel marketing
3. Agriculture tools sharing	23. GSM mapping	44. Free wi-fi for tourist areas
4. Digital payment of subsidies	24. Centralized admission system	45. Training programs for local guides
5. Specialty food program	25. Biometric attendance and CCTV cameras	<b>Finance</b>
6. Digitalisation of land records	26. Co-creation hubs	46. GPS tagging of branches
7. Smart irrigation project	27. Mobile learning centers in rural areas	47. National biometric identity card
8. Education and training programs for farmers	<b>Energy</b>	48. Gamification of digital payments
9. State of the art knowledge centers	28. Smart pricing	49. Allow telecom operators to offer digital financial services
<b>Healthcare</b>	29. Smart metering	50. Digital payments campaign
10. National digital healthcare program	30. Smart grid	<b>Urban Infrastructure</b>
11. High speed internet access	31. Nepal Electricity Authority (NEA) mobile app 2.0	51. Water ATMs
12. Next generation digital facilities	32. Any branch payment	52. Smart metering
13. EMR	33. Smart building	53. Pipeline monitoring
14. Health procurement and distribution solution	34. NEA field force automation	54. Intelligent waste management
15. Mobile health units	35. NEA customer service portal	55. Crowd source for municipal services
16. E-maternal care	36. NEA e-learning center	56. Automated waste sorting
17. Drones for medical emergencies	<b>Tourism</b>	57. Connected public transport
18. Centralised telemedicine center	37. Welcome Nepal website	58. Public transport app
<b>Education</b>	38. Welcome Nepal app	59. Multi-modal smart cards
19. Smart classrooms	39. E-visas	60. Intelligent traffic management
	40. Multilingual helpline	61. Intelligent parking lot management

62. Intelligent toll booths	68. Take lead in 5G	75. Paperless government
63. National disaster management system	69. Fiber broadband network	76. Kathmandu digital hub
64. Ride sharing	70. High speed connectivity for government establishments	77. Public wi-fi hotspots
65. Disaster management training	71. Nepal cyber security center	78. Digitally streamlined PPP platform
Connectivity	72. SEZ for IT sector	79. Digital literacy training
66. Internet- a fundamental right	73. Government of Nepal app	80. Government e-learning platform
67. Availability of spectrum	74. E-governance 2.0	

In 2020, DoCSCP prepared a draft **E-Commerce Bill** that aimed at creating facilitative environment for trade of goods and services as well as intellectual property rights using electronic means (DoCSCP, 2020). However, the bill came in a decade after the first e-commerce business was set up in Nepal and it has been criticized for being “too little, too late” (Prasain, 2021a).

E-commerce entrepreneurs argue that the bill has been prepared in rush and needs a lot of revision. Amun Thapa, Chief Executive Officer (CEO) of Sastodeal, highlights three significant points that need to be clearly addressed in a final e-commerce law: precise definition of e-commerce, data privacy of customers, and a way to formalize small informal e-retailers providing e-commerce service via social media (Prasain, 2021a). Not only the e-commerce traders, but consumer rights activists also see a lack of specific provision in the bill to address roles and responsibilities of online marketplaces. Moreover, the issue of data privacy has not been elaborated properly and consumers fear possibilities of data breaches in the future (Ibid). When compared to Nepal, the e-commerce rules in India enables stakeholders to benefit from digitalisation of the domestic digital economy and has provisioned a separate regulator exclusively handling the e-commerce sector (India Department of Consumer Affairs, 2020). It also has a foresight on the business' algorithms and the usage of AI to promote safe, fair, and appropriate market space and data management for every e-commerce company. Nepal can certainly take into account such good practices as inspiration to promote and regulate e-commerce.

The **Industrial Policy 2011** has provisions to use Information Technology (IT) to promote micro enterprises as well as cottage and small industries by bringing IT hubs into operation in collaboration with the cooperative and private sectors (Nepal Ministry of Industry, Commerce and Supplies, 2011). Communication mediums such as print, radio, television, internet, and similar IT technologies are intended to be used

to arrange for the provision of transmission of all the backward and forward information.

The 2017 amendment of the **Companies Act 2006** has provided a basis for the statutory recognition and implementation of online filing of documents with the CRO. Though online filing and submission of documents was already initiated before the amendment, it was not legally enforceable. This latest amendment has recognized the use of electronic signature in the documents to be submitted to the CRO. However, introduction of these new provisions is only limited to the submission of documents. The collection of the Certificate of Registration as well as other charter documents still requires physical presence and verification of electronic submissions from the same office (Nepal Ministry of Industry, Commerce and Supplies, 2017).

The **Electronic Transaction Act 2008** addresses the electronic record of legal information, documents, and records along with accepting use of digital signatures on any such information, documents, and records requiring certification. It also recognizes submission of original document through electronic means and holds that government or public entities are required to accept such documents submitted through lawful electronic means (Nepal Law Commission, 2008). However, while these laws are in place since 2008, they are hardly practiced. One of the major reasons for this is the associated risks entailing electronic transactions. To add to that, some government and public officers are reluctant to recognize electronic records and documents as they are more used to working with physical means and there seems to be little encouragement to change this working style.

### Encouraging initiatives by the government

Nepal government has also been introducing some initiatives to boost digitalisation and promote entrepreneurship in Nepal. One such initiative for encouraging electronic transactions and payments

was 10 per cent VAT rebate announced by the Inland Revenue Department (IRD) for any purchases made through electronic means (Ghimire, 2020a). However, entrepreneurs believe that there is a lack of awareness about this rebate and till date there is no clarity in rebate mechanisms. Another encouraging initiative was to slash the interest rate on loans under the youth self-employment program. The government slashed the interest rate by two per cent to 8 per cent from 10 per cent per annum (Shrestha, 2020). The decision was made to help young entrepreneurs hit by the COVID-19 pandemic and to ensure they have access to funds to keep their business going.

Another recent initiative is the introduction of QR code payments in vegetable markets. During the pandemic, the fear of spreading the virus through paper money was present with both vendors and consumers. In order to minimize contact, QR payments were introduced in all wholesale markets which is definitely a boost towards cash less transactions (Nepali Times, 2020). Moreover, the national payment switch has gone into service since November 2021 and gives hope of bringing together banks and digital payment vendors. In its first phase, payment equipment including Nepal-Pay QR and Network QR as per Nepal QR Standard, Direct Debit Request-To-Pay and E-Mandate equipment, inter-connection between wallets, inter-connection through biller gateway for different payment and PSO settlement are available (The Kathmandu Post, 2021).

Among other initiatives, the Government has disbursed an amount of Rs. 7.13 billion for ICT in the Union Budget for the Fiscal Year (FY) 2020/21. Furthermore, a sum of Rs. 500 million has been allocated in the budget for encouraging start-ups and support entrepreneurs willing to invest in innovative businesses post COVID and would be lent at two per cent interest rate (Bista and Ghimire, 2020). In fact, the government includes a number of initiatives to make Nepal more digital in various regards ranging from online education, telemedicine, online banking, online tax payment, and many more. The government also aims to develop programs for driving digital adoption and facilitating establishment of a reliable ICT infrastructure. Additionally, it provides budget for implementation of Digital Nepal Framework, National Knowledge Park in Lalitpur, and expansion of broadband internet as well as 4G all over Nepal within the next two years. Province 5 is already on its path towards establishing itself as 'Digital Province' where an amount

of Rs 96.7 million is being allocated for digital initiatives such as digital identity card program for full time farmers to provide government subsidy in collaboration with the local government (Republica, 2020).

Overall, there are a number of policies and initiatives that the government has introduced to create an enabling environment to promote digitalised entrepreneurship. The young entrepreneurs interviewed for this study also mostly believe these government initiatives are encouraging. However, implementation has barely made an impact to foster digitalisation in their businesses. Moreover, they find the policy initiatives urban-centric and stress that there is very little effort made to communicate them to prospective or existing entrepreneurs. Sixit Bhatta, CEO of Tootle, posits that there are policy-related bottlenecks and ambiguities that act as impediments to digitally enabled youth ventures. Such policies are not progressive in nature as they do not allow anyone to experiment and take risk. Often, entrepreneurs' initiatives precede policy formulation. In addition, the respondents see a lack of urgency among the policy makers in drafting and making suitable amendments, which in turn results in a feeling of distrust among the entrepreneurs. Saurav Dhakal, Chief Curator and Founding Member of Green Growth, has initiated blockchain in agriculture. He considers that such digitalisation initiatives need to be supported by an enabling policy framework.<sup>12</sup> Promotion of such ventures requires making the eco-system ready to facilitate both the consumers and service providers.

Therefore, policies alone would not be sufficient to foster an enabling environment if the requisite eco-system is not in place. National policies should therefore not only promote digitalisation as such but also ensure its co-evolution and complementarity with changing times and nature of doing businesses.

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<sup>12</sup> Based on the conversation of the author with Saurav Dhakal in Oct-Nov 2020.

# Conclusion and Recommendations

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This section summarises key findings under four major themes: (1) legal aspects, (2) institutional aspects, (3) operational aspects and (4) perceptual aspects. They are based on the interviews undertaken with young entrepreneurs to understand and assess their perspectives on digitalisation and entrepreneurship in Nepal.

## *Legal aspects*

- E-commerce businesses and platforms have been working amidst unclear policies and provisions. Despite a late introduction of the e-commerce bill, it was widely welcomed. The bill should be passed as soon as possible to bring into practice a regulatory framework for e-commerce.
- Laws that deal simultaneously with digitalisation and youth entrepreneurship are almost non-existent. Youth Policy of Nepal fails to underscore the importance of ICT for promoting youth entrepreneurship. Though the Youth Vision 2025 and Ten-Year Strategic Plan by Ministry of Youth and Sports 2015 aims to introduce technology for modernizing agriculture, provide special concessions and grants to youths, and grant special facilities for IT innovations, detailed legal and institutional framework on how these will be delivered are not in place. Likewise, the incentives and policy support from the state to IT-based companies is often fragmented across various laws and government entities and, therefore, ambiguous.
- Despite government's proposition and repeated exhortations to make all government transactions digital and extending digital payments in the next two years, no separate laws to govern them have been drafted. This has resulted in entrepreneurs, especially of small-sized enterprises, to believe that they are charged higher amounts of commission for smaller transactions.
- Digitalisation-related laws that have been enacted have essentially failed to create an enabling environment to link digitalisation with business, even among the ones promoted by the youths.

It is natural that innovation precedes legislation. However, a larger lag in understanding the innovation and pace of adoption among the policy makers often causes policy lapses and inefficiencies in government functioning.

- Formulating a comprehensive policy guide on youth entrepreneurship that provides basic guidelines becomes imperative. Policy makers need to focus on promoting youth entrepreneurship by keeping technology exchange and innovation as one of the major focus areas.

## *Institutional aspects*

- There is a lack of a dedicated institution that could guide prospective entrepreneurs with regard to their queries and concerns starting with registration, tax payment, tax settlement, and other regulatory mechanisms.
- Institutional inefficiency is cited as a major barrier to promoting youth entrepreneurship. Institutions meant to facilitate entrepreneurship are marred by structural constraints such as unskilled workforce, system failure, software issues, bad attitude of employees, and incompetent workforce.
- Entrepreneurs do not find the interfaces of government institutions user-friendly. Most often they are not updated regularly and often experience glitches and system failures, especially when there is heavy usage load. For example, the system failure of IRD during tax payments.

## *Operational aspects*

- Despite the existence of the required legal framework and the needed institutions, youth entrepreneurs continue to experience several problems mostly due to lack of appropriate enforcement mechanisms and other operational failures. The eco-system that would enable digital ventures is yet to evolve. For instance, e-delivery business can be made fully functional in a digital manner only when there is no physical contact

between the person placing the order and the person delivering it. However, in the absence of a digitised address, such a situation is not yet possible in our context.

- Policies such as the ICT policy are mostly found lagging in implementation due to the infrastructural limitations such as limited internet and bandwidth. Besides these, the high cost of internet data packages and high commission cost for use of e-payment gateways are additional bottlenecks in fostering a digitally enabled ecosystem for youth entrepreneurs.

#### *Perceptual aspects*

- While most entrepreneurs believe their digital skills are adequate for running business, they also stress on the importance of enhancing them. Associations related to youth could contribute or work towards disseminating information and imparting skills in order to enhance the level of digital literacy among their members.
- Entrepreneurs are optimistic of the fact that the rate of adoption to digital platforms through the registration, compliance, and scaling up processes is encouraging given the changed habits of consumers and their preferences for digital transactions. However, they posit that the government and policy makers show little interest in disseminating information regarding new policies.
- Digitalisation acts are a key enabler by minimizing errors, promoting transparency, and reducing intermediaries and other related costs. However, some entrepreneurs consider digitalisation an expensive proposition for a small business as it requires acquisition of IT-equipment like computers and other related gadgets. This clearly suggests a lack of awareness regarding the potential benefits of digitalisation.
- While most of the entrepreneurs are highly enthusiastic about adopting digitalisation, the absence of the right incentives for adopting digital means is acting as a motivational dampener.
- The issuance of pre-paid cards by banks for making international payments needs to be user-friendly and address the security concerns related to digital payments. At the same time, the government should devise policies to ensure digital and cyber security and disseminate information on a regular basis.
- The government should not only devise plans to make youths more digital savvy but also introduce policies that would encourage small and micro enterprises to go for digital transactions.
- Use of e-wallets and QR code by micro entrepreneurs such as roadside groceries and vendors is an excellent and timely initiative to foster digitalisation. The government should set up mechanisms to make such initiatives more sustainable by reducing digital divide and creating necessary digital infrastructure. The government should act on expanding the 3G/4G/5G services at every local and provincial level.
- A dedicated Ministry, for example, Ministry of Communication, or one of its departments could work for providing services and information to prospective entrepreneurs for bridging the knowledge gap.
- Youth-related membership bodies should produce a booklet with relevant information covering various aspects of business registration, renewal, tax compliance, and so forth. This would be handy for prospective entrepreneurs. NYEF has already started working on such a guide.
- Training related to the productive use of IT (for example social media marketing, cloud computing, using ICT for communication, and other aspects of business) needs to be provided to all entrepreneurs through membership bodies across all the provinces.
- Government should come up with special packages to encourage women entrepreneurs to use digital platforms that give them a chance to get a fair value for their products and services through such online platforms.
- Nepal's entrepreneurship until now is largely based on the agriculture sector. Therefore, digitalisation in the agriculture sector is a must. The government should come up with working mechanisms to ensure that IT technology and digitalisation is accessible

#### **Policy recommendations**

- The government should prioritize the endorsement of the e-commerce bill and passing by the Parliament.

to farmers and those engaged in agriculture. In addition, the government should devise specific action plans for effective adoption of mobile apps for farmers as has been mentioned in the fiscal budget.

- In the drive towards digitalisation, the use of blockchain in agriculture is a very promising example. However, it calls for the formulation of necessary laws and policies since there is a lack of regulation at the moment.
- Incentives and subsidies need to be in place for motivating young people for digital entrepreneurship.

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