



JOINT SDG FUND



DATA-DRIVEN INSIGHTS ON THE DIGITAL GAPS OF MICRO, SMALL AND MEDIUM ENTERPRISES (MSMES) AND MARGINALIZED POPULATIONS IN KENYA (LEAVE-NO-ONE-BEHIND)

A Report by the Green and Digital Innovation Hub (gDIH)

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This report is published under the DigiKen – Digital Platforms Kenya programme supported by the Joint SDG Fund with contributions from the European Union and the Governments of Belgium, Denmark, Germany, Ireland, Italy, Luxembourg, Monaco, the Netherlands, Norway, Poland, Portugal, the Republic of Korea, Saudi Arabia, Spain, Sweden, and Switzerland. In Kenya, DigiKen is led by UN Resident Coordinators Office and implemented by UNESCO (lead agency), UNCDF, UNEP and UN Women.

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LIST OF ABBREVIATIONS

ACTS – African Centre for Technology Studies

AI – Artificial Intelligence

CRM – Customer Relationship Management

DigiKen – Digital Platforms Kenya Program

eCitizen – Electronic Citizen Government Service Platform

FinTech – Financial Technology

GDP – Gross Domestic Product

gDIH – Green and Digital Innovation Hub Kenya

ICT – Information and Communication Technology

IoT – Internet of Things

IP – Intellectual Property

LNOB – Leave No One Behind

MSME – Micro, Small and Medium Enterprise

NGO – Non-Governmental Organization

PWD – Person with Disability / Persons with Disabilities

ToT / TOT – Trainer of Trainers

EXECUTIVE SUMMARY

This needs assessment report presents a clear and compelling picture of a population that is digitally aware, economically motivated, and highly receptive to practical training, yet still constrained by uneven access to advanced skills, formal business systems, and digital resilience. Far from depicting a population at the very beginning of digital exposure, the findings reveal something more important: a constituency that has already entered the digital environment, but not yet on terms that allow it to fully convert participation into durable opportunity.

The assessment draws on 854 respondent records distributed across 14 innovation hubs, offering a broad view of current capabilities, aspirations, and constraints. The demographic profile is significant. The respondent group is predominantly young, with 41.6 percent aged 18–25 and 34.5 percent aged 26–35, meaning more than three quarters are under 35. It is also slightly female majority, with 52.2 percent female respondents. In education terms, the sample is not marginal to learning systems: most respondents report on at least secondary education, and large shares have diplomas, certificates, or university degrees. At the same time, their labor market position remains fragile. The largest employment categories are informal employment (34.7 percent) and unemployment (27.9 percent), with students also forming a substantial share.

This matters because it frames the needs assessment not simply as a question of digital inclusion, but as a question of economic transition. The respondents are not asking primarily to be introduced to technology. They are asking, in effect, **how to use digital tools to secure work, grow businesses, improve livelihoods, and participate more effectively in education and public life.**

The Central Finding: Digital Training is Viewed as a Pathway to Economic Mobility

The strongest signal in the dataset is that respondents see digital literacy as instrumental, not ornamental. When asked what they hoped to gain from attending a digital literacy program, the most frequent responses were getting a paying job or a better job (469 respondents), improving business outcomes (433), attaining higher education (377), and accessing government online services (355). These responses are highly revealing. They indicate that digital capability is understood by respondents as a bridge to tangible advancement in work, enterprise, education, and service access.

This orientation toward utility rather than abstraction should shape how the needs assessment is interpreted. The demand is not for digital literacy in the narrow sense of learning devices or software for their own sake. It is for applied capability: the ability to convert digital knowledge into earnings, opportunity, efficiency, and inclusion. In that regard, the assessment identifies a population that is economically ambitious and digitally interested but still blocked by specific skill deficits.

Business Digitization Emerges as the Most Important Capability Gap

Nowhere is this more visible than in the findings on business-related digital training. Respondents identified digital marketing (632 responses) as the single most important area in which they need further development to manage digital business operations. This was followed by e-commerce platforms and management (503),

cybersecurity and data privacy (494), data analytics and business intelligence (486), mobile app and web development basics (414), digital transformation strategy (407), CRM systems (401), and FinTech tools (400).

Taken together, these results point to a sophisticated demand profile. Respondents are not merely asking for exposure to generic office applications or introductory internet use. They are identifying the precise functions that define competitive participation in contemporary digital commerce: acquiring customers, managing online transactions, analyzing data, protecting information, and using customer and financial systems effectively. This is a meaningful distinction. It suggests that the population is already close enough to the market to recognize where real advantage lies.

The same pattern appears in the financial literacy data. The top areas of interest are personal finance management tools (661), online and mobile banking (592), digital payment systems (551), cybersecurity in financial transactions (508), and digital credit and lending platforms (473). These preferences indicate that the needs of respondents span both the enterprise and household domains. They want to grow businesses, but they also want to navigate digital finance safely and productively in daily life.

The implications are substantial. A training intervention that focuses only on basic digital access would underserve this population. What the data supports instead is a curriculum organized around digital livelihoods: marketing, e-commerce, digital finance, analytics, and secure transactions.

A Gap between Participation and Formalization

One of the most important tensions in the assessment is the gap between participation in digital markets and formal digital maturity. Among those who answered the relevant business questions, 57.8 percent reported that they sell products or services online. Yet only 6.2 percent of this group reported having a website. This is a striking contrast. It suggests that respondents are participating in digital commerce but are doing so mainly through third-party platforms rather than through owned digital infrastructure.

This interpretation is reinforced by the media and platform data. The channels with which respondents are most familiar or actively using are WhatsApp (736), Facebook (634), TikTok (576), YouTube (419), and Instagram (415), while only 117 indicated website use. In practical terms, this means that respondents are engaging the digital economy through social and messaging ecosystems rather than through formal web-based business assets.

That is not inherently a weakness; indeed, social commerce is often the most realistic entry point for low-cost digital entrepreneurship. However, it does expose a structural vulnerability. Businesses that rely exclusively on third party platforms are more exposed to algorithm changes, account loss, reputational shocks, and weak ownership over customer data and brand assets. The assessment therefore suggests a developmental need not just for more participation, but for more formalized and resilient participation.

Artificial Intelligence: Interest is Real, but Capability is Uneven

The findings on AI are especially important because they reveal a population standing at the edge of a major technological transition without yet possessing the skills to make full use of it. Among those who answered the question on AI use in business or self-employment, 60.2 percent said they do not use AI, while 28.1 percent said they do while 11.7 percent were uncertain and responded with 'maybe'. This indicates that AI adoption is not yet mainstream in the sample, but neither is it absent. A meaningful minority is already exploring or actively applying AI in their business activities.

The more revealing evidence lies in the verbatim responses about why respondents are not using AI and what constraints they face. Repeated reasons include lack of skills, lack of knowledge, and the need to be trained. Constraints mentioned by respondents include poor or unstable internet, cost, paid software, and limited access to advanced features on free tools. When respondents describe the skills they want, they mention prompting, how to use AI well, automation, and even development of customized AI tools.

This body of evidence points to an important conclusion: the obstacle to AI use is not primarily skepticism, but rather a lack of practical readiness. Respondents do not appear to reject AI; rather, many remain outside it because they lack the competencies, access conditions, and guided examples required to make it useful. This creates a strong case for integrating AI into future training but doing so pragmatically; not as speculative theory, but as a set of applied tools for communication, marketing, workflow support, and productivity.

Media Capability Is Strong at the Level of Device Use, Weaker at the Level of Strategy and Protection

The assessment also shows that many respondents already possess an operational foundation for digital content creation. Large numbers report using their phones to take photos (746), record video (712), communicate through messaging apps (649), share stories on social media (608), and search for information online (590). This is a critical strength. It means the population is not starting from zero in content production or mobile engagement.

When asked whether they knew how to create media content such as stories, photos, or videos, responses were varied: 316 respondents indicated they needed training, 311 said they had the skills, 93 reported having some ability, and 67 said they did not. This difference between basic use and confident skill is significant. It suggests that respondents can operate devices and platforms, but not all can do so in a deliberate, commercially effective, or technically refined way. The desired media-related training confirms this. The most requested skills were photography and video production (588), cyber safety and digital security (478), free tools for content production (427), owning content and intellectual property (414), addressing misinformation and disinformation (377), storyboarding and scripting (375), and analysing metrics to gauge followership and commercial opportunity (357). These are not random interests. They form a coherent architecture of need: create better content, protect it, distribute it more effectively, understand its performance, and defend against reputational and informational harm.

In other words, respondents are not simply asking to become content producers. They are asking to become competent digital communicators and economic actors within a risky and fast-moving media environment.

Digital Safety, Harassment, and Reputation Management Are Not Peripheral Issues

One of the most consequential findings in the report is that online safety is not an abstract concern, it is a lived issue. Among respondents who answered the relevant question, 55.4% indicated they were aware of online safety risks, while 18.2% reported only partial awareness and 26.4% indicated that they were not aware of such risks. More concretely, 78 respondents reported having experienced online bullying or harassment. Their examples included abusive comments, mocking behavior, hacked accounts, and harmful posts on personal or business pages.

This experience is mirrored in the training demand. When asked whether they knew how to deal with bad reviews, misinformation, or attacks against them, 436 respondents said they needed training. Similarly, cybersecurity and digital safety ranked among the most requested areas for future training, both in business operations and media practice.

These findings carry two implications. First, digital inclusion without safety is incomplete. Second, training programs that fail to address account security, harassment response, misinformation, and reputational resilience would leave a central need unmet. For a population using social platforms as key business and communication channels, these risks directly affect economic opportunity, trust, and mental security.

Preferred Delivery Model: Practical, Time-Bounded, and Human-Centred

The format preferences in the assessment were also revealing. Respondents most frequently preferred in-person workshops (37.0%) or hybrid training (34.6%), while 22.7% preferred fully online training formats such as Zoom or Google Meet and 5.7% preferred short video modules or recorded sessions. In addition, the majority report that they can devote only 1–4 hours per week to training, with the largest single group indicating 2–4 hours.

This suggests that the most effective program design would be modular, practical, and socially anchored. Respondents appear ready for digital learning, but they do not overwhelmingly prefer self-directed online formats. They appear to value structure, guidance, and interaction. This is consistent with the broader pattern in the data: the challenge is not access to devices alone, but the acquisition of confidence, technique, and judgment. Those are often best built through facilitated learning environments rather than passive content delivery.

Overall, the needs assessment reveals a population with substantial digital exposure, clear economic ambition, and strong readiness for targeted capability development. Respondents already use mobile phones, messaging platforms, and social channels extensively. Many are engaged in online selling. A notable minority is already experimenting with AI. Yet this participation remains uneven, under-formalized, and vulnerable to gaps in skill, infrastructure, security, and strategic understanding.

The central lesson of the assessment is therefore straightforward: the need is not merely for digital access, nor for generic digital awareness. The need is for a next-generation practical training model that helps respondents **move from digital presence to digital advantage**.

Such a model would need to combine business digitization, digital finance, AI application, media production, online safety, intellectual property awareness, and performance tracking. It would need to be delivered in a format that is modular, interactive, and realistic for people who can only commit a few hours per week. Most of all, it would need to treat participants not as passive beneficiaries of technology, but as emerging workers, creators, and entrepreneurs seeking the tools to convert digital participation into meaningful progress. That, ultimately, is what this assessment shows with clarity: the respondents are ready, but readiness alone is not enough. What they need now is structured capability that matches the seriousness of their aspirations.

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1. INTRODUCTION

Kenya's digital economy has continued to grow rapidly, supported by rising internet penetration, increased mobile use, and enabling government policy frameworks. According to the International Trade Administration[1], the ICT sector contributes about 7% to Kenya's GDP and ranks among the most vibrant in Sub-Saharan Africa. However, this progress has not been evenly distributed, and a continuous digital divide affects youths, women, persons with disabilities, and rural communities. Evidence also highlights a pronounced digital gender gap, with only 21.7% of rural women using the internet compared to 32.2% in urban areas[2]. MSMEs and young people also face major challenges in accessing training, digital devices, and affordable connectivity, which continues to limit their participation in the digital economy[3]. Kenya's Artificial Intelligence Strategy 2025–2030, grounded in key national frameworks including the 2019 AI and Blockchain Taskforce Report and the Kenya National Digital Master Plan (2022–2032)[4], therefore emphasises the need to strengthen digital infrastructure, expand digital skills, and enhance innovation ecosystems to fully harness emerging technologies.

To fully realise the benefits of the digital economy, innovators need more than infrastructure and connectivity. They require targeted support systems to translate ideas into sustainable, scalable enterprises. Business growth depends on access to practical entrepreneurship training in business management, financial literacy, legal knowledge (especially intellectual property protection), and strategic marketing[5]. Innovators also benefit from mentorship networks that guide them through market entry, strengthen investment readiness, and support product development. As emerging technologies such as AI, blockchain, and IoT continue to reshape market opportunities, innovators must also build advanced technical skills and work with updated content to remain competitive. Strengthening innovation hubs as practical centres for entrepreneurship capacity building, technical upskilling, mentorship, and resource access is therefore pivotal for building a more inclusive, dynamic, and sustainable digital economy in Kenya.

In view of these structural inequalities in digital access and capacity, there is increasing recognition that national-level digital policies must be complemented by localized, demand-responsive mechanisms to ensure inclusive participation in the digital economy. Innovation hubs are offering a range of critical services to address these needs. They provide co-working spaces equipped with internet access, technical infrastructure for product development, and communal environments that enhance collaboration and knowledge sharing. Many hubs also deliver entrepreneurship training programs covering areas such as business modeling, market research, and financial planning[1]. Legal advisory services, particularly focused on intellectual property rights, are increasingly available to help innovators protect and commercialize their ideas. Mentorship opportunities are organized through structured programs connecting early-stage entrepreneurs with experienced advisors and industry experts. Additionally, hubs facilitate exposure to investment opportunities by hosting networking events, pitch competitions, and investor meet-ups.

[1] <https://www.trade.gov/country-commercial-guides/kenya-digital-economy>

[2] <https://www.kictanet.or.ke/celebrating-progress-amplifying-digital-access-for-women-and-girls-in-kenya/>

[3] <https://www.trade.gov/country-commercial-guides/kenya-digital-economy>

[4] <https://dig.watch/updates/kenya-launches-ai-and-blockchain-report>

[5] <https://ideas.repec.org/p/sau/iznews/1707.html>

Some hubs further support technical skill advancement through coding bootcamps, mobile app development courses, and training on emerging technologies.

The Digital Platforms Kenya (DigiKen) Program was designed as an initiative aimed at strengthening Kenya's digital innovation ecosystem at the grassroots level. The initiative positions digital innovation hubs as key community institutions that can drive locally grounded digital transformation by serving as delivery points for digital skills training, inclusive entrepreneurship support, and access to essential digital infrastructure. By embedding interventions within hubs that are already rooted in local contexts, DigiKen seeks to bridge the last mile digital divide while complementing national efforts to build a more equitable, resilient, and future ready digital society. Through training, mentorship, access to digital tools, and safe learning environments, the hubs are expected to equip youth, women, persons with disabilities, MSMEs, and rural communities with the practical skills and networks required to participate and succeed in the digital economy. The program is implemented by African Centre for Technology Studies (ACTS) through the Green and Digital Innovation Hub (gDIH) and is delivered via 14 Digital Innovation Hubs embedded within Kenya's local communities.

Before rolling out curricula and support services through these hubs, it is essential to understand what beneficiaries can already do, where confidence and capability are weakest, what tools they can access, and what risks they face in digital participation. This needs assessment was therefore conducted to generate evidence on digital literacy, digital entrepreneurship, media literacy, digital financial readiness, exposure to and adoption of artificial intelligence, and awareness of regulatory and intellectual property considerations among MSMEs and Leave No One Behind (LNOB) groups across the 14 hubs. The findings provide the basis for designing a demand-driven curriculum and hub support model that is feasible, inclusive, and targeted toward tangible livelihood and enterprise outcomes within Kenya's evolving digital economy. Additionally, the findings provide a baseline of learners' existing digital capabilities that can be used to measure the progress of digital skilling interventions.

2. METHODOLOGY

The needs assessment was conducted using a mixed methods approach to ensure a comprehensive understanding of the training needs. Based on the existing gaps in digital access and skills, gDIH designed the needs assessment questionnaire and digitised it on the KoBoToolbox to support standardised data collection across all hubs. The gDIH then trained Trainers of Trainers (ToTs) on how to use the tool and deploy the questionnaire in the field. Each hub began by mapping its beneficiaries across two target groups: MSMEs and Leave No One Behind (LNOB) populations. LNOBs constituted 500 beneficiaries, while MSMEs accounted for 30, which resulted in 530 mapped beneficiaries per hub. To ensure inclusivity, the gDIH required that at least 25% of mapped beneficiaries be women, 10% be persons with disabilities, and at least 50% be youth.

Primary data was collected through a Kobo questionnaire administered between September and October 2025. From the mapped list, each hub selected 60 beneficiaries for the survey. Data collection was led by three Trainers of Trainers (ToTs) per hub, with each ToT collecting data from 20 beneficiaries.

Our survey targeted 840 responses, with an average of 60 responses from each Hub as shown below; the final database comprised 854 responses.

	Mapping	Need assessment Per TOT	Need assessment Per HUB
Women	125 (25%)	4(22.2%)	12(22.2%)
Men	75(15%)	3(16.7%)	9(16.7%)
Young women (youth)	150(30%)	5(27.8%)	15(27.8%)
Young men (youth)	100(20%)	4(22.2%)	12(22.2%)
PWD	50(10%)	2(11.1%)	6(11.1%)
MSMEs	30	2	6
TOTAL	530	20	60

3. KEY FINDINGS

The findings provide critical evidence to inform the design of a demand-driven training curriculum, capacity-building pathways, and support services, while also establishing a baseline against which the effectiveness of a digital literacy intervention can be measured. The next section (3.1) gives an overview of the findings, which will be discussed in detail in section 3.2

3.1 Overview of findings:

3.1.1 MSMEs:

Digital Entrepreneurship

- MSMEs showed varied ability to recognise and evaluate digital business opportunities: Although 37.1% felt very or extremely confident in identifying digital opportunities, 19.9% reported no confidence at all, indicating that while a segment of MSMEs demonstrated strong opportunity-recognition skills, a substantial proportion remained unable to assess or leverage emerging digital markets.
- Advanced digital entrepreneurship capabilities were significantly underdeveloped: A majority of MSMEs lack the skills needed for technology-enabled growth: 62.7% were not confident at all in website or app development basics, and 54% reported no confidence in scaling their businesses using automation or digital technologies, highlighting a major capability gap in higher-order digital functions essential for competitiveness.

Digital Financial Literacy

- Day to day digital finance use was strong with 62.1% of the respondents very or extremely confident using online and mobile banking tools while 42.2% were very or extremely confident making digital payments. This confirms widespread familiarity with mobile-money and digital transactions.
- Advances financial skills were weak: 41.6% were not confident at all on financial data privacy and protection, 42.9% had no confidence in online consumer rights and financial regulations, while 59% reported no confidence at all in cryptocurrency and blockchain knowledge.

Media Literacy

- Basic media use was high with 78.6% knowing how to watch videos on a phone very well or could teach others while 51.6% could use a computer to send email very well or teach others, showing comfort with everyday media tools.
- Professional and governance skills were limited with 52% of the respondents unaware of IP rights related to media content; 41.9% did not know how to track media metrics, while only 31.8% could create a professional digital profile very well or teach others.

Regulatory Compliance and Intellectual Property

- Regarding business-systems exposure, 81.8% knew what a business licence or permit is. Besides, 64.9% were aware of health or environmental certifications, but 38.2% cited a lack of knowledge, 32.9% mentioned costs, and 28.9% cited a lack of support as barriers to complying with basic environmental standards.
- IP capability was particularly low: 42.2% did not know how to protect their ideas or designs, 24.8% did not think about protecting them at all, and only 16.8% understood the importance of IP to their business, leaving MSMEs' innovations largely unprotected.

Artificial Intelligence

- AI experience was also low: 50.7% rated their AI experience as basic, and 23.6% had no experience, yet 96.2% believed smart digital or AI apps could improve business profits, and 90.9% believed AI could improve product or service quality.

3.1.2 Leave No One Behind Groups (LNOBs)

Digital Entrepreneurship

- LNOB respondents reported low confidence across most entrepreneurship skills with 58.5% not feeling confident at all in scaling a digital business using automation and technology and 44.8% were not confident at all in managing digital payments and online financial tools.
- Data-driven and compliance skills were especially weak whereby 52.9% had no confidence in using data analytics for business decision-making and 53.9% had no confidence in digital legal and compliance issues, pointing to major gaps in the skills needed for safe, growth-oriented participation in the digital economy.

Digital Financial Literacy

- Transactional confidence was noted to be above average: when using online and mobile banking tools, 57.2% were very or extremely confident, and only 10.9% had no confidence.
- Risk-management and advanced literacy were weak: 46.6% of the respondents were not confident at all about financial data privacy and protection, 49.4% had no confidence in cybersecurity for digital financial transactions while 62.3% were not confident at all about cryptocurrency and blockchain technologies marking these as the most critical capability gaps.

Media Literacy

- Media literacy was strongest in practical, everyday use, particularly watching videos on phones (75.7% highly proficient), sending emails on computers (50.5%), and creating personal digital profiles (50.3%), indicating that foundational communication and content-access skills were well established among most LNOBs.
- The main gaps were in career-oriented and responsible media use where 41.7% lacked the ability to create professional digital profiles, 53.2% had no understanding of media etiquette, and 50.5% could not address misinformation and disinformation, pointing to a clear need for training on digital professionalism and safe online engagement.
- Demand for media skills was high with 74.6% of the respondents indicating need for training in photography and video production, 46.8% in media etiquette and responsible communication, and 65.6% in cyber safety and digital security, signaling readiness to build more sophisticated media capabilities.

Regulatory Compliance

- Regulatory awareness was relatively strong at the entry level, with 70.0% aware of business licensing or permit requirements, yet this had not translated into action, as 80.6% had never obtained a license or permit.
- The strongest barrier to compliance was informational rather than financial since among those without permits, 64.7% cited limited knowledge compared with 35.3% that cited costs

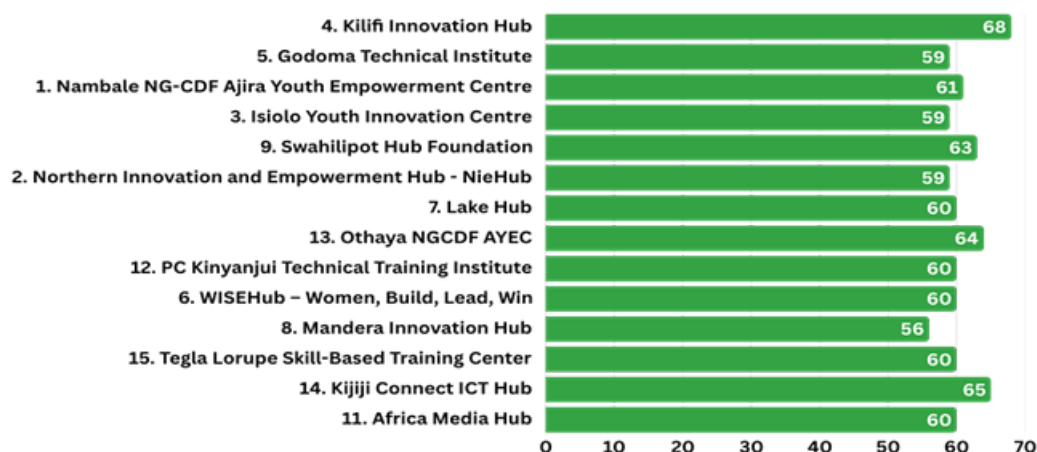
Artificial Intelligence

- AI familiarity was minimal such that 60.2% did not use AI in their small business or self-employment ventures, 28.1% said they did, and 11.7% were unsure; 50.1% rated their understanding of AI as basic and 32.9% had no idea what AI was, while only 4% viewed their understanding as advanced.
- Despite low usage, LNOBs showed openness to AI-supported work, particularly where AI tools could assist in content creation, marketing, and research, indicating that introductory, highly practical AI training could unlock new livelihood pathways if delivered through trusted hubs.

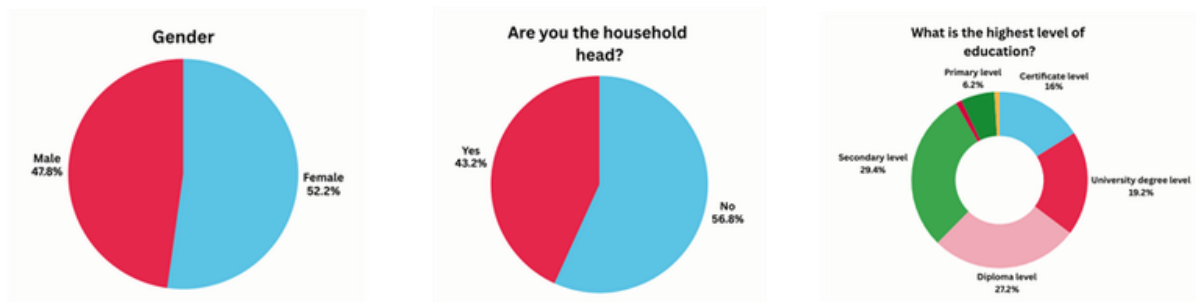
3.2 Discussion of the Findings:

3.2.1 Demographics of Database

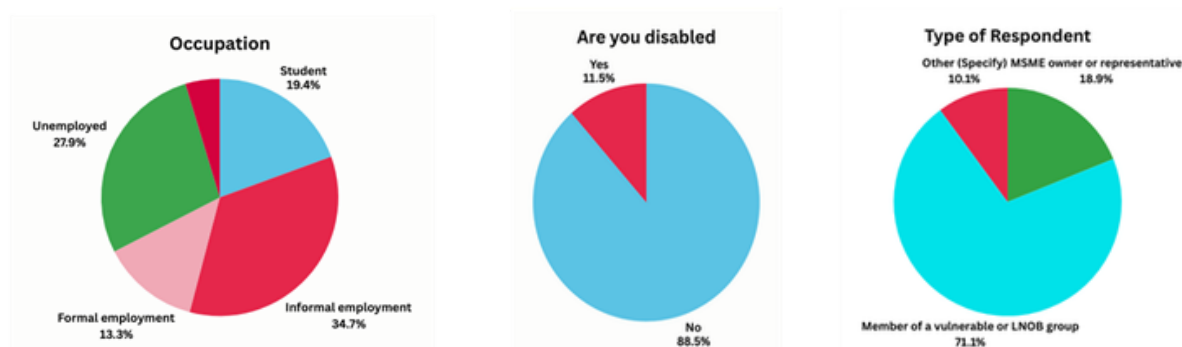
Each of the 14 hubs were expected to interview at least 60 respondents derived from their mapped database of potential learners. The interviews were facilitated by TOTs based on the 14 digital innovation hubs, who conducted data collection, in person, and through mobile interviews. Some Hubs, such as Manderu Innovation Hub, did not meet the expected number of respondents, while others, such as Killifi Innovation Hub, exceeded the target.



Women constituted the majority at 52.2%, while men accounted for 47.8%, showing balanced gender engagement with a slight female predominance. This finding was not a surprise, since the mapping of learners intentionally targeted more women and girls. Household-level responsibility was less common among respondents: only 43.2% reported being household heads, while 56.8% were not. Educational attainment was diverse with the majority having progressed beyond primary school. 27.2% held diploma-level qualifications, 29.4% had completed secondary education, 19.2% held university degrees, and 16% had certificate-level training, while 6.2% had only primary-level schooling.



Occupational patterns showed reliance on informal livelihoods, with 34.7% engaged in informal employment and 27.9% unemployed. Students constituted 19.4%, while only 13.3% worked in formal employment, underscoring the importance of DigiKen's skilling and enterprise support for groups with limited access to stable income sources. Persons with disabilities represented 11.5% of respondents, while 88.5% reported no disability. Additionally, 71.1% identified as members of vulnerable or LNOB groups; 18.9% were MSME owners or representatives, and 10.1% identified under "other" categories.



Training delivery preferences leaned strongly toward interactive and blended learning approaches. In-person workshops accounted for 37.0%, followed by hybrid delivery at 34.6%, while online training formats such as Zoom or Google Meet were preferred by 22.7%. Only 5.7% preferred short video modules or recordings. This suggests that respondents placed greater value on formats that combine real-time engagement, peer interaction, and facilitator support.

Language preference for training delivery was majorly English, selected by 80.7% of respondents. Kiswahili accounted for 15.8%, while local languages represented 3.5%. Thus, English was the most preferred primary language for curriculum delivery, while still highlighting the importance of multilingual adaptation to improve inclusion for specific learner groups.

Weekly time availability for training was concentrated within moderate commitment windows. The largest majority, 41.6%, could devote 2–4 hours per week, followed by 32.3% who preferred 1–2 hours. A further 16.4% were available for 4–6 hours, while 9.7% could commit more than 6 hours weekly. The supports the design of training programmes that use short, modular sessions within a 2–4 hour weekly structure, which aligns best with the dominant learner availability profile.

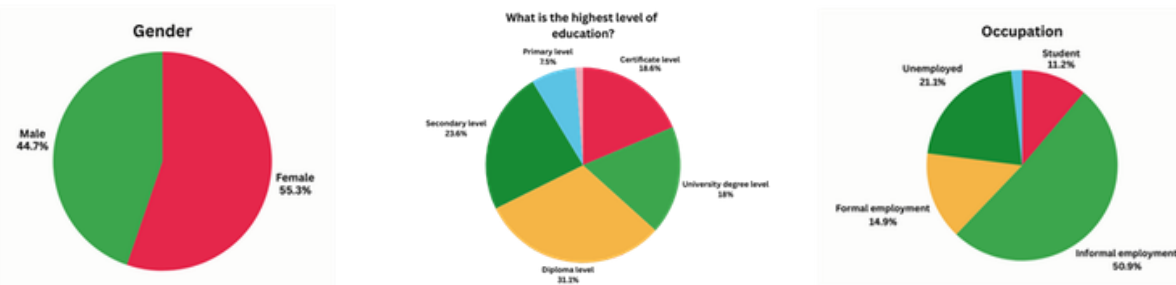


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3.2.2 Data Insights from MSME sample

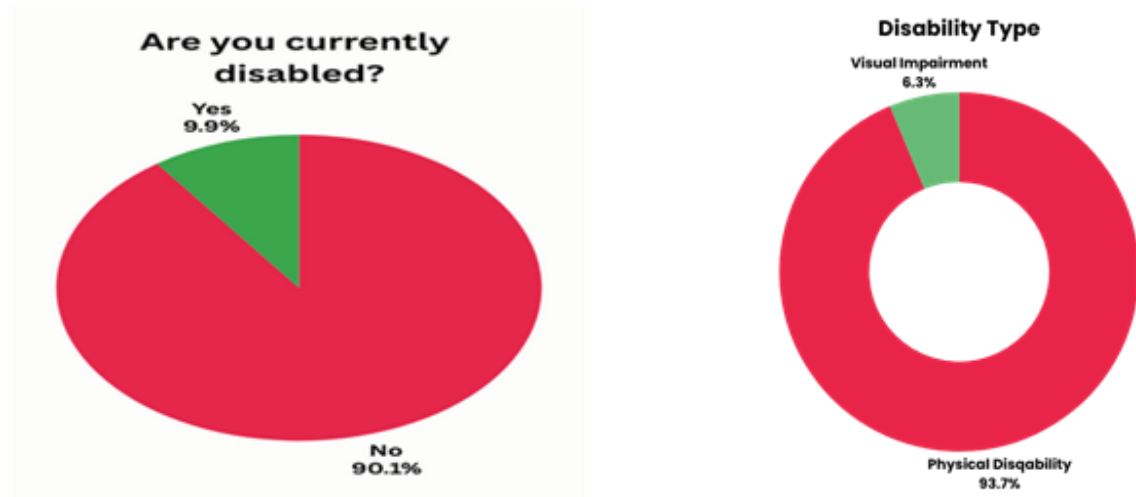
Demographics

Female respondents formed the majority within the MSME sample, accounting for 55.3%, while male respondents accounted for 44.7% which shows strong participation of women-owned and women-led enterprises. Educational attainment varied: 23.6% had reached secondary education, 18% held university degrees, 18.6% had certification-level training, 31.1% held diplomas, 1.2% had postgraduate-level education, and 7.5% had primary-level education. Occupational distribution showed that 50.9% operated within informal employment, 14.9% worked in formal employment, 21.1% were unemployed, 1.9% were family caregivers, and 11.2% were students, highlighting the centrality of informal sector enterprise activity among MSMEs.



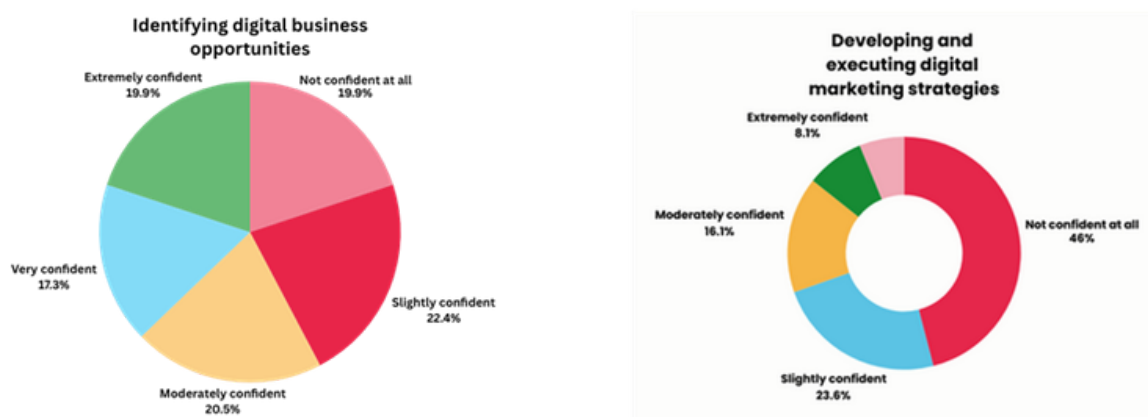
Of the respondents, 9.9% of respondents reported having a form of disability, while 90.1% had no disability. Among specific disability categories, 6.3% reported visual impairment and 93.7% reported physical disabilities, while mental health disorders, intellectual disabilities, autism, chronic progressive disorders, and maxillofacial disabilities each recorded 0%, meaning none of the respondents identified with these categories.

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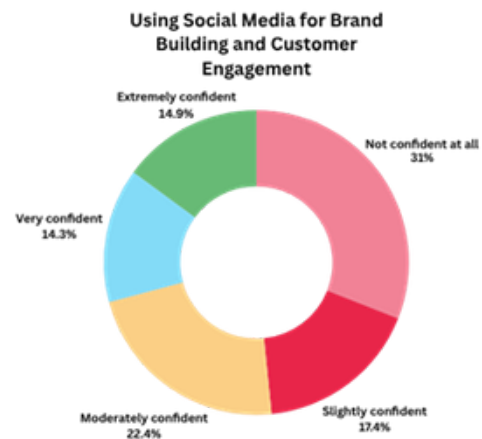
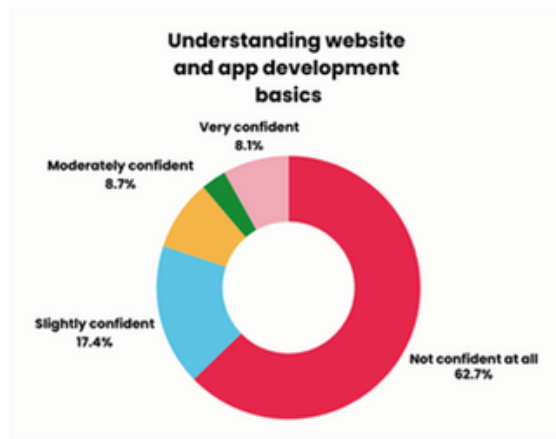


Digital Entrepreneurship

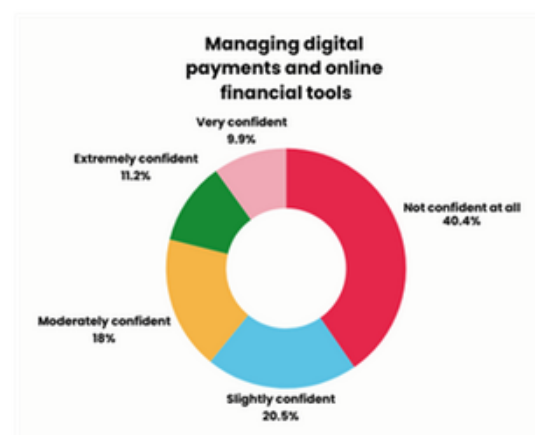
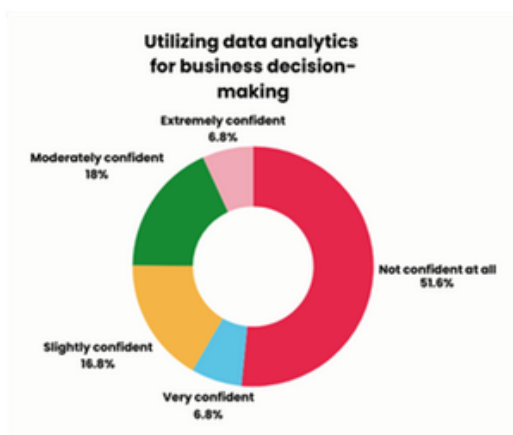
Confidence in digital entrepreneurship among MSME respondents varied across the different competencies assessed in the DigiKen needs-assessment survey. Confidence in identifying digital business opportunities distributed fairly evenly across the scale: 19.9% were not confident at all, 22.4% slightly confident, 20.5% moderately confident, 17.3% very confident, and 19.8% extremely confident. This meant that, although about one-fifth of MSMEs sat at each end of the spectrum, almost two-fifths already felt very or extremely confident in spotting digital opportunities. For developing and executing digital marketing strategies, confidence dropped sharply. Here 46% were not confident at all and 23.6% were only slightly confident, while 16.1% were moderately confident, 6.2% very confident, and 8.1% extremely confident. Most MSMEs therefore lacked solid skills in structured online marketing, even though a small group already operated at a high level of confidence.



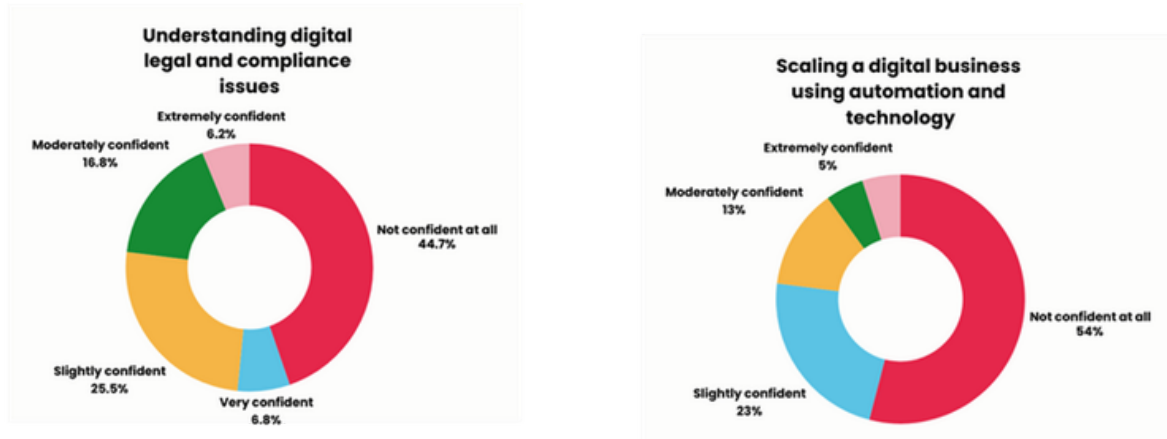
In understanding website and app development basics, 62.7% were not confident at all, 17.4% slightly confident, 8.7% moderately confident, 8.1% very confident, and 3.1% extremely confident, confirming that technical development skills formed one of the weakest areas. Using social media for brand building and customer engagement presented a more balanced picture: 31.1% were not confident at all, 17.4% slightly confident, 22.4% moderately confident, 14.3% very confident, and 14.9% extremely confident. Many MSMEs still struggled, but a sizeable minority already used social media with high confidence for visibility and customer interaction.



For utilizing data analytics for business decision-making, 51.6% reported no confidence, 16.8% were slightly confident, 18% moderately confident, and 6.8% very confident, with another 6.8% extremely confident. Over half of the enterprises therefore did not use data to guide decisions, while only about one in seven operated at very high confidence levels. Managing digital payments and online financial tools produced a more encouraging pattern: 40.4% were not confident at all, 20.5% slightly confident, 18% moderately confident, 9.9% very confident, and 11.2% extremely confident, showing that a substantial group already handled digital transactions with strong confidence, even though two in five still lacked this capability.



In understanding digital legal and compliance issues, 44.7% were not confident at all, 25.5% slightly confident, 16.8% moderately confident, 6.8% very confident, and 6.2% extremely confident, which pointed to large gaps in awareness of digital rights, data protection, and regulatory obligations. Finally, for scaling a digital business using automation and technology, 54% were not confident at all, 23% slightly confident, 13% moderately confident, with only about 5% very confident and 5% extremely confident. This confirmed that only a small fraction of MSMEs felt ready to use automation and advanced digital tools to grow their businesses, while over half had no confidence at all in this area.



Digital Financial Literacy

In using online and mobile banking tools, confidence levels were generally high. 33.5% were extremely confident, 28.6% very confident, 17.4% moderately confident, and 14.3% slightly confident, while only 6.2% were not confident at all, showing that most MSMEs comfortably navigated basic digital banking functions. A similar pattern appeared in making digital payments, where 20.5% were extremely confident, 21.7% very confident, and 23% moderately confident, while 19.9% were slightly confident and only 14.9% had no confidence at all, indicating strong familiarity with mobile-money and digital transactions. Understanding and using digital credit presented a different profile. Here, 24.8% were moderately confident, 25.5% very confident, and 18.6% extremely confident, while 14.8% reported no confidence, and 16.2% were slightly confident. This suggested that respondents engage with digital lending tools to some extent, although a smaller group still lacked confidence.



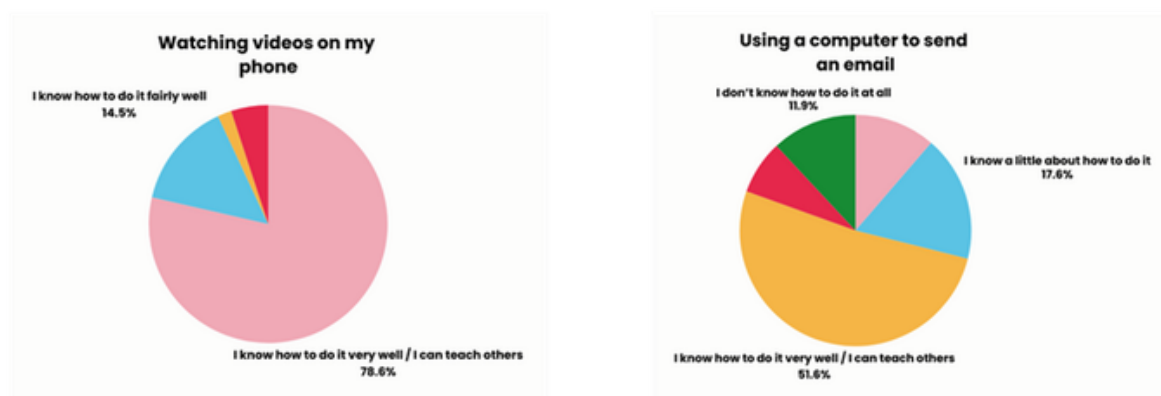
On awareness of financial data privacy and protection; 41.6% were not confident at all, while 16.8% were moderately confident, 21.7% slightly confident, 13% extremely confident, and 6.9% very confident, indicating significant gaps in understanding how digital financial information should be protected. Knowledge of consumer rights and financial regulations online showed similar limitations.

42.9% had no confidence, while 26.7% were slightly confident, 13.7% moderately confident, 11.2% very confident, and 5.5% extremely confident, which highlighted a need for foundational training on digital financial rights and obligations. Basic knowledge of cryptocurrency and blockchain technology presented the widest knowledge gap. 59% were not confident at all, 21.7% slightly confident, 13.7% moderately confident, 3.1% extremely confident, while 2.5% were very confident, showing that most MSMEs had minimal exposure to emerging digital financial systems.

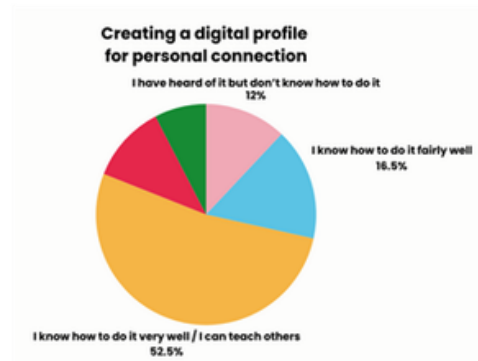
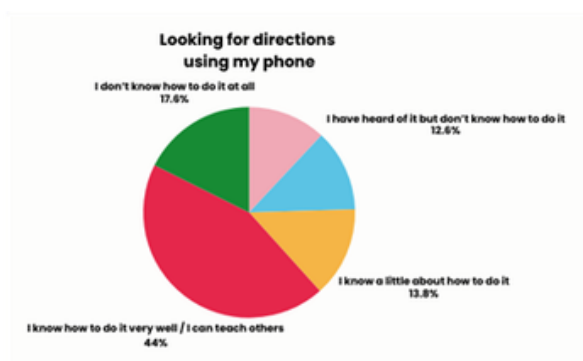


Media Literacy

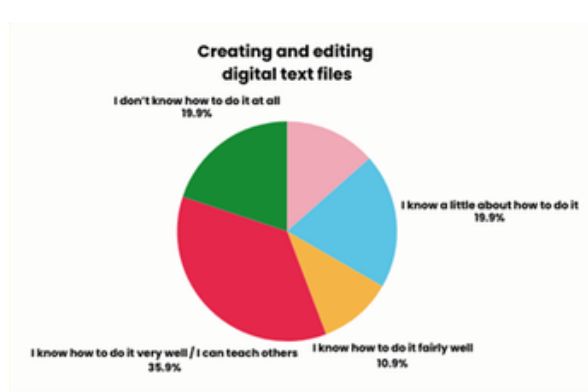
Media information literacy skills varied across the MSME respondents. In watching videos on a phone, confidence levels were high; 78.6% reported knowing how to do it very well or could teach others, 14.5% knew how to do it fairly well, 5% knew a little about how to do it, and only 1.9 % did not know how to do it at all, showing strong familiarity with basic media consumption. Using a computer to send an email presented a different pattern. 51.6% knew how to do it very well or could teach others, 11.3% knew how to do it fairly well, 17.6% had only a little knowledge, 7.6% had heard of it but did not know how to do it at all, and 11.9% did not know how to do it at all, indicating mixed levels of exposure to computer-based communication.



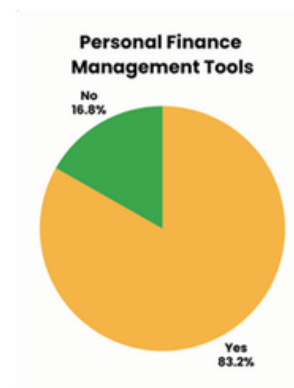
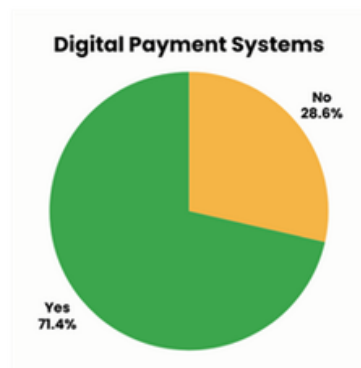
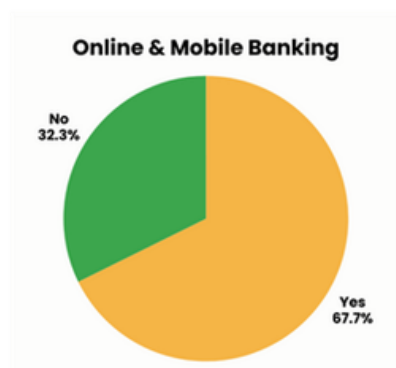
Looking for directions using a phone reflected fairly strong capability. 44% could do it very well or could teach others, 12% reported having the knowhow of doing it fairly well, 13.8% had a little knowledge, and 12.6% had heard of the function but did not know how to use it, while 17.6% did not know how to do it at all, suggesting that navigation tools were familiar to many but not universal. Creating a digital profile for personal connection also showed strong results: 52.5% could do it very well or teach others, 16.5% could do it fairly well, 12% had heard of it but did not know how to do it, 7.6% had a little knowledge, and 11.4% did not know how to do it at all.



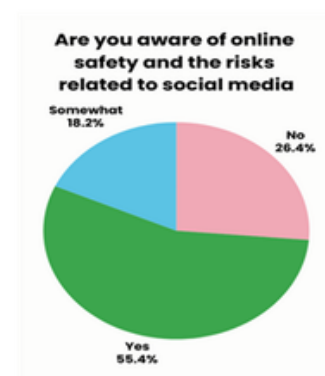
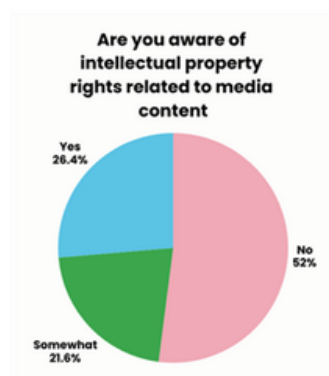
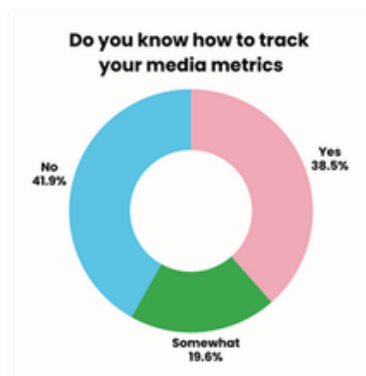
Skills related to professional digital presence presented more variation. When creating a digital profile for professional purposes, 31.8% knew how to do it very well or could teach others, 7.8% could do it fairly well, and 12.7% had a little knowledge, while 29.9% did not know how to do it at all and 17.8% had heard of it but did not know how to perform it, suggesting limited exposure to professional branding tools. With regards to creating and editing digital text files, 35.9% reported that they could do it very well or teach others, 10.9% could do it fairly well, 19.9% had a little knowledge, 13.4% had heard of it but did not know how to do it, and 19.9% did not know how to do it at all, showing significant gaps in basic productivity software skills.



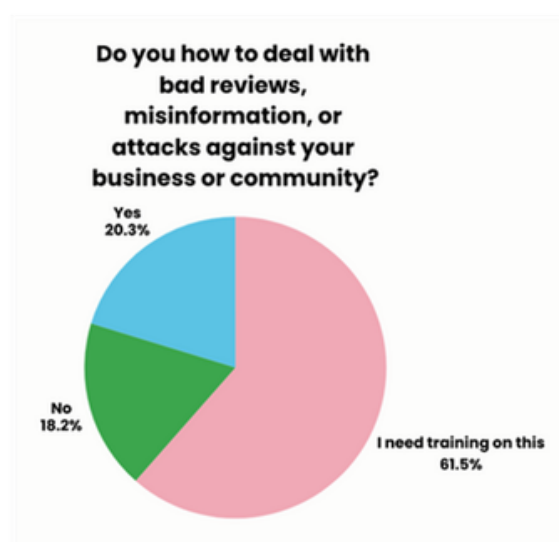
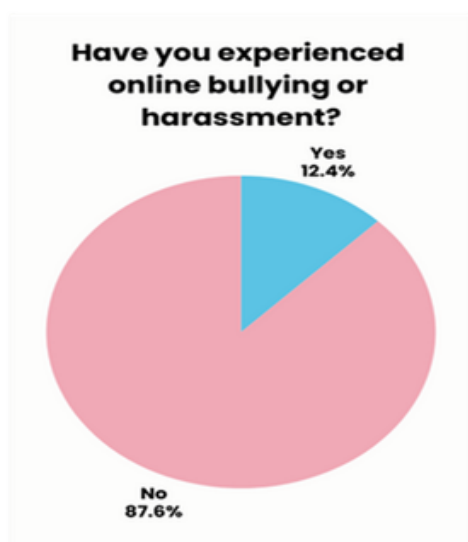
Interest in digital financial literacy training was high across all assessed areas. For online and mobile banking, 67.7% expressed interest, while 32.3% were not interested, showing strong demand for foundational digital banking skills. Digital payment systems showed even higher interest, with 71.4% wanting training and 28.6% declining, reflecting the importance of mobile and digital transactions among MSMEs. Training in personal finance management tools generated the strongest demand in this category; 83.2% expressed interest, and only 16.8% indicated no interest, demonstrating a clear need for support in budgeting, expense tracking, and basic financial planning.



Media governance and online safety awareness varied considerably across the MSME respondents. Knowledge of how to track media metrics was limited, as 41.9% did not know how to do this, 19.6% knew somewhat, and only 38.5% knew how to track their metrics, showing that many enterprises were using digital platforms without monitoring engagement or performance. Awareness of intellectual property rights related to media content followed a similar pattern. 52% had no awareness, 21.6% had some awareness, and only 26.4% understood these rights, signalling a major gap in protecting digital content generated by MSMEs. Online safety awareness was higher. 55.4% were aware of online safety risks, 18.2% had some awareness, and 26.4% were not aware, suggesting that while a majority recognised online threats, a significant portion still lacked essential knowledge to navigate digital spaces safely.

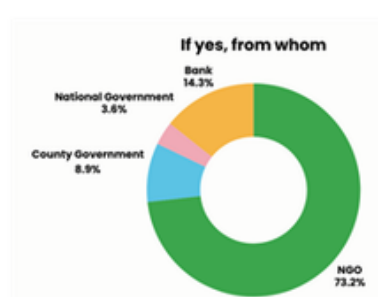


On the experience with online harassment; 87.6% had never experienced online bullying or harassment, while 12.4% had, providing insight into the digital vulnerability experienced by a minority of respondents. When asked whether they knew how to handle bad reviews, misinformation, or attacks against their business or community, only 20.3% knew what to do, 18.2% did not know, and 61.5% reported needing training, showing a strong need for capacity-building on digital reputation management.

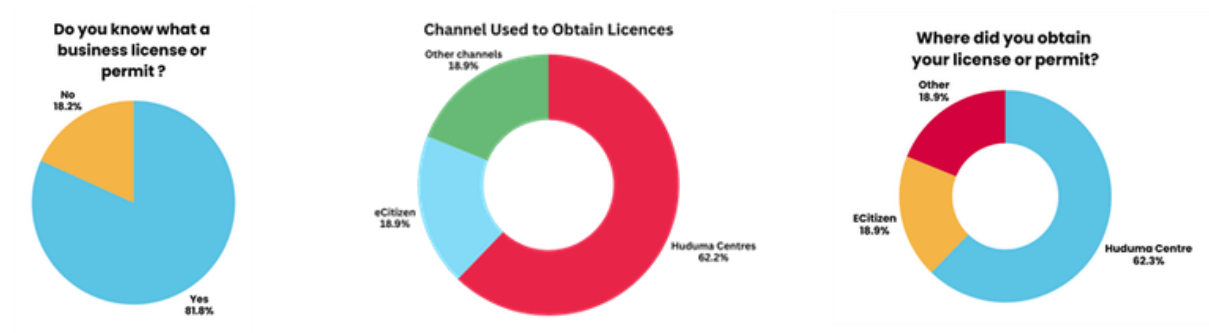


Regulatory Compliance

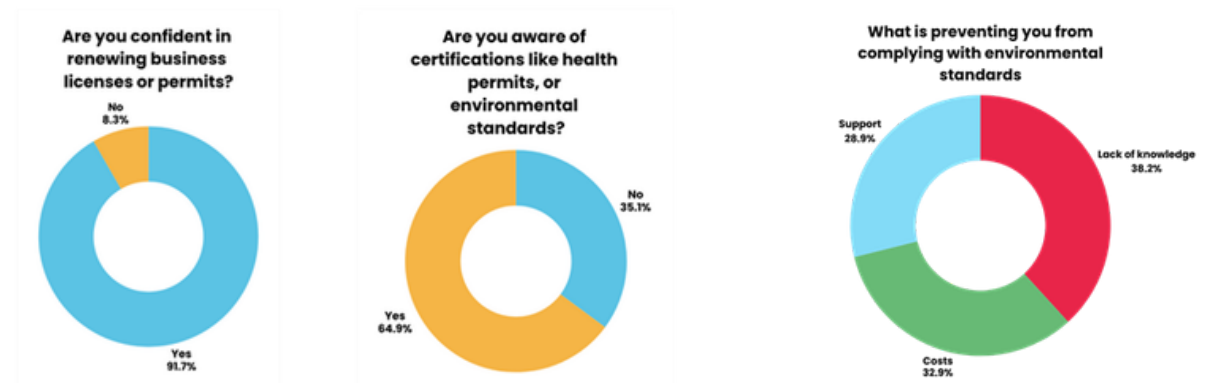
A minority of MSME respondents had received business training at the time of the DigiKen Needs Assessment Survey. Only 32.9% reported having received any form of business training, while 67.1% had not, showing that most MSMEs entered the digital economy with limited formal business-development exposure. Among those who had received training, 73.2% obtained it from NGOs, 8.9% from county government, 3.6% from national government, and 14.3% from banks, confirming that non-state actors played the largest role in MSME capacity support. The types of training received varied, with 37.9% of the respondents reporting they had been trained in entrepreneurship-related themes such as pitching or product certification, 22.5% in marketing skills, 15.5% in financial literacy, 13.8% in soft skills, and 10.3% in bookkeeping. This distribution reflected exposure to foundational business topics but limited access to comprehensive, blended business support programmes.



Most MSME respondents understood what a business licence or permit was, with 81.8% reporting awareness, while 18.2% did not know what a licence or permit entailed. However, actual acquisition levels were lower. Only 35.8% had ever obtained a business licence or permit, 49.3% had not, and 14.9% were still in the process of obtaining one. Among those who had completed the process, 62.2% obtained their licences at Huduma Centres, 18.9% via eCitizen, and another 18.9% through other channels, showing that Huduma Centres remained the most commonly used access point.

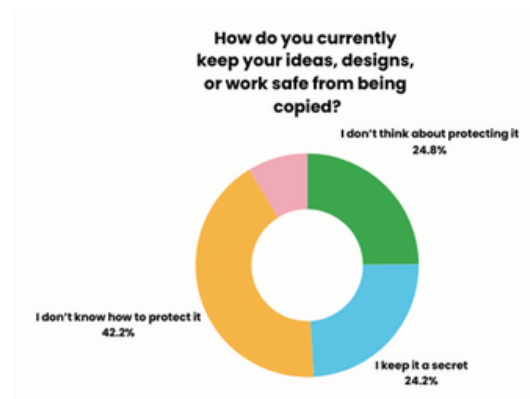


Confidence in renewing licences or permits was high, as 91.7% felt confident, while 8.3% were not confident, suggesting that renewal requirements were easier to navigate than initial registration. Awareness of certifications such as health permits or environmental standards was also relatively strong, with 64.9% reporting awareness, while 35.1% were not aware, indicating a moderate baseline understanding of additional compliance obligations. When asked about barriers to complying with basic environmental standards, 38.2% cited lack of knowledge, 32.9% cited costs, 29.9% cited lack of support which shows that knowledge gaps were the most significant constraint, followed by financial and institutional challenges.

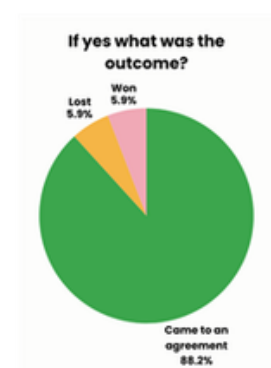
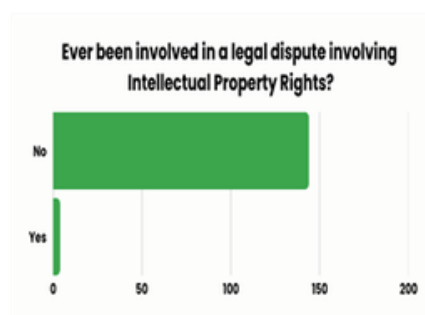
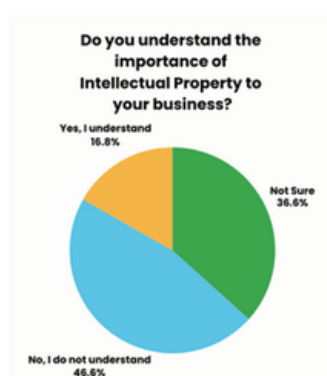


Intellectual Property

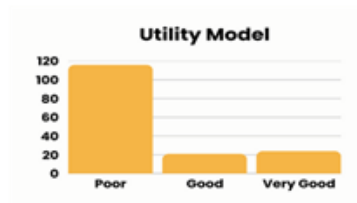
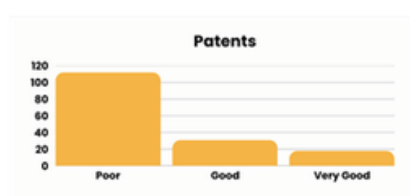
Awareness of intellectual property protection among MSMEs was limited. When asked how they currently kept their ideas, designs, or work safe from being copied, 42.2% reported that they did not know how to protect their work, 24.8% did not think about protecting it, and 24.2% relied on keeping it secret, while only 8.8% applied a formal or structured method of safeguarding their creations. Knowledge of the IP registration process in Kenya was also low: the majority rated their understanding as poor, while only a small number rated their knowledge as good and very few described it as very good, showing that most respondents lacked practical familiarity with the procedures for acquiring IP rights.



Only 16.8% understood the importance of intellectual property to their business, while 46.6% did not understand its importance and 36.6% were not sure, indicating substantial uncertainty about how IP influences business competitiveness and growth. Legal experience with IP was minimal: almost all respondents had never been involved in a legal dispute concerning IP, and the few who had participated in such disputes reported varied outcomes. Among these, 88.2% came to an agreement, 5.9% won, and 5.9% lost, showing that formal IP disputes were rare within the sample.

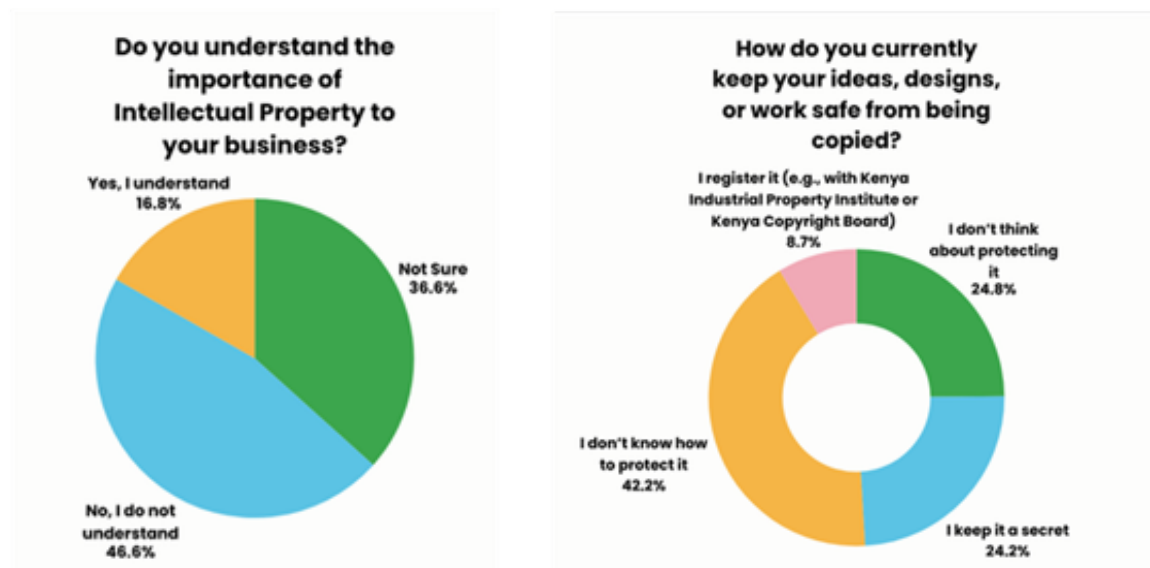


Majority of the MSME respondents reported poor levels of awareness on the different IP rights.



Understanding of the business relevance of intellectual property was generally low. 46.6% of respondents reported that they did not understand the importance of intellectual property to their business, while 36.6% were not sure, with only 16.8% stating that they understood it. This indicates that most respondents were operating without clear awareness of how intellectual property connects to business value, competitiveness, and long-term protection of their innovations.

The practical approaches used to protect ideas, designs, or work further reinforced this gap. 42.2% reported that they did not know how to protect designs and ideas, 24.8% said they did not think about protecting, and 24.2% relied on keeping it a secret. Only 8.7% had taken formal protection measures by registering with institutions such as the Kenya Industrial Property Institute or Kenya Copyright Board. This shows strong dependence on informal or absent protection strategies, which may expose businesses and innovators to copying risks, weak ownership claims, and missed opportunities for commercialisation.

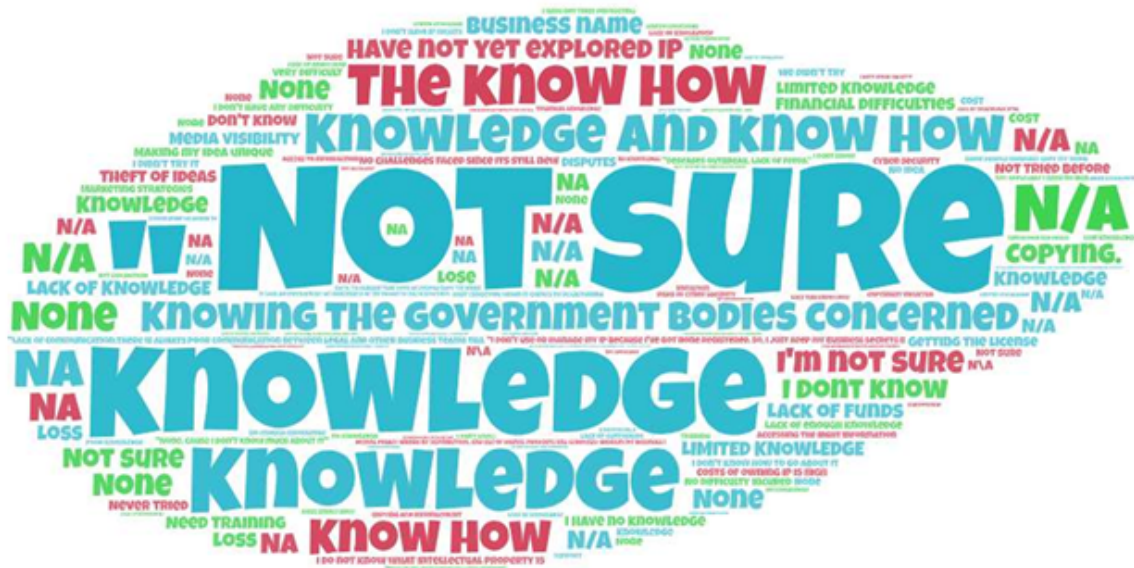


Knowledge and procedural know-how were the dominant barriers to protecting, using, and managing intellectual property, with respondents repeatedly citing a lack of knowledge, limited knowledge, poor knowledge, not knowing where to start, and uncertainty about exactly what should be protected. This suggests that the primary challenge was not only low awareness of intellectual property concepts, but also weak understanding of the practical pathways for registration, enforcement, and strategic use of IP for business growth.

A second recurring constraint concerned financial and institutional barriers, with respondents highlighting high registration costs, lack of funds, difficulty obtaining licenses, and limited access to relevant information or support structures.

Another notable theme was non-engagement with IP systems altogether, with many respondents stating that they had never tried protecting their intellectual property, had not yet explored IP, or did not believe they had any IP worth protecting. Thus, intellectual property management challenges were shaped by a combination of low literacy, affordability barriers, weak institutional guidance, and limited appreciation of IP as a business asset, which may reduce incentives to protect and commercialise innovation.

What difficulties does your business face when trying to protect, use, or manage its intellectual property?



A dominant qualitative theme from the responses was the need for intellectual property literacy and practical capacity building, with respondents indicating training, knowledge, education, mentorship, and clear guidance on what intellectual property is, what should be protected, and how registration processes work. Many responses specifically pointed to the need for support on trademarks, copyrights, patents, KECOBO registration, Kenya Copyright Board processes, and the procedural steps for securing rights.

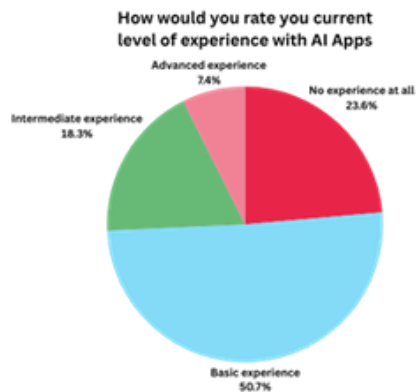
A second major support need centred on financial and procedural assistance, where respondents repeatedly mentioned funding, capital, financial support, and help with the costs of registration and application. This suggests that even where awareness exists, affordability was a critical barrier to formalising ownership and securing protection rights.

What kind of support would help your business better manage its Intellectual Property?

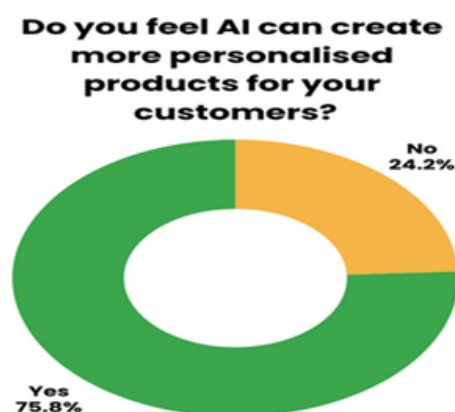
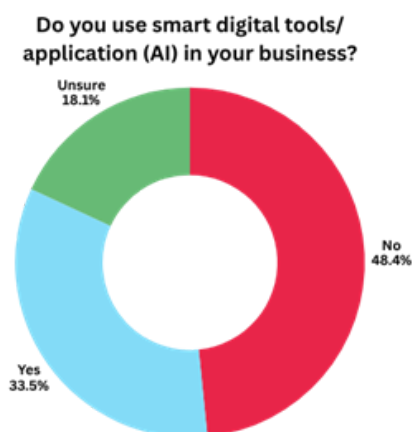


Artificial Intelligence

Experience with smart digital and AI applications was generally low among MSME respondents. 50.7% rated their experience as basic, 23.6% had no experience at all, 18.3% reported intermediate experience, and only 7.4% rated themselves as advanced, showing that most respondents were still at introductory levels of AI interaction. Despite this, perceptions about AI's usefulness were strongly positive. 96.2% believed smart digital or AI applications could assist business profits, while only 3.8% did not, indicating broad confidence in AI's potential benefits even among those with limited hands-on experience.

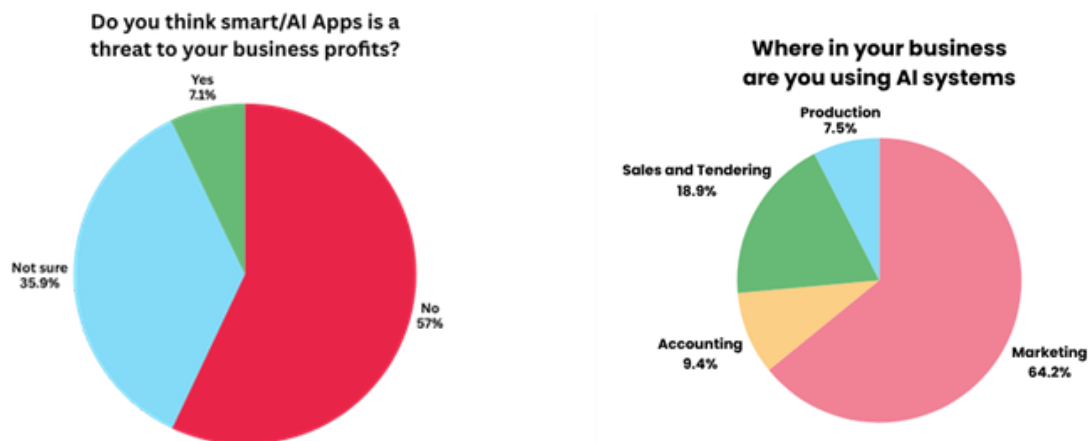


On the actual adoption of AI tools in business, 48.4% did not use any smart digital or AI applications, 33.5% reported using them, and 18.1% were unsure, showing that conceptual awareness had not yet translated into widespread adoption. Expectations around AI's value for customer experience were high: 75.8% believed AI could create more personalised products, compared to 24.2% who did not. A similar pattern emerged regarding improving service or product quality: 90.9% believed AI could improve quality, while only 9.1% disagreed.



The dominant perception was that AI applications were not viewed as an immediate threat to business profitability, as 57% of respondents selected No. At the same time, 35.9% indicated that they were not sure, while 7% perceived AI as a threat. This demonstrates less fear of disruption and more indicative that many businesses had not yet fully determined whether AI would strengthen competitiveness, alter market positioning, or affect their profit margins over time.

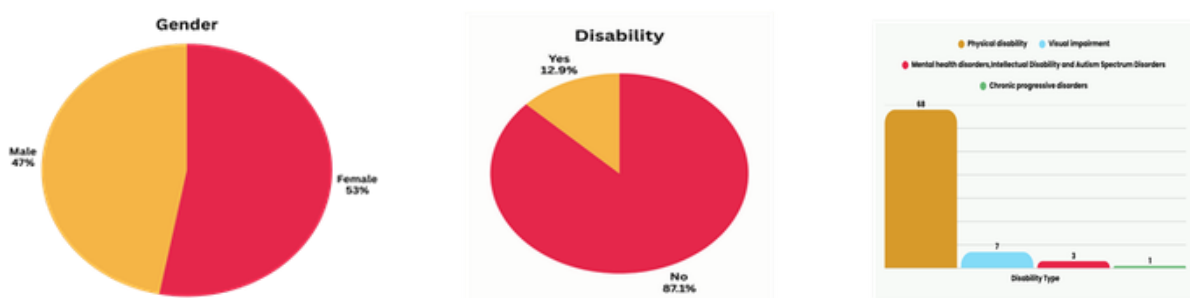
Current business use of AI systems was highly concentrated in marketing, where 64.2% reported active use, making it the dominant functional area of adoption. AI use in sales and tendering accounted for 18.9%, while accounting represented 9.4%, and production 7.5%. Thus, AI uptake was strongest in customer-facing and growth-oriented functions, while operational and back-end integration was comparatively limited. This indicates an early-stage adoption pathway in which businesses first leverage AI for visibility, outreach, and market expansion before extending use into internal process optimisation and production systems.



3.2.3 Data Insights from LNOB sample

Demographics

Female respondents constituted 53% of the LNOB participants, while males accounted for 47%. This reflects strong engagement of women in DigiKen-related activities and highlighted their interest in accessing digital-skills and economic-empowerment opportunities. The distribution also indicated that the program reached both genders relatively equitably, supporting efforts to advance gender-inclusive digital transformation within the targeted counties. A total of 12.9% of respondents identified as persons with disabilities, while 87.1% reported no disability. Physical disabilities accounted for the majority of reported cases at 68, while visual impairment was reported in 7 cases. Only 3 cases of mental health, intellectual disability, and autism spectrum disorders, and 1 case of chronic progressive disorders were reported. This distribution indicated a strong concentration in physical disabilities.

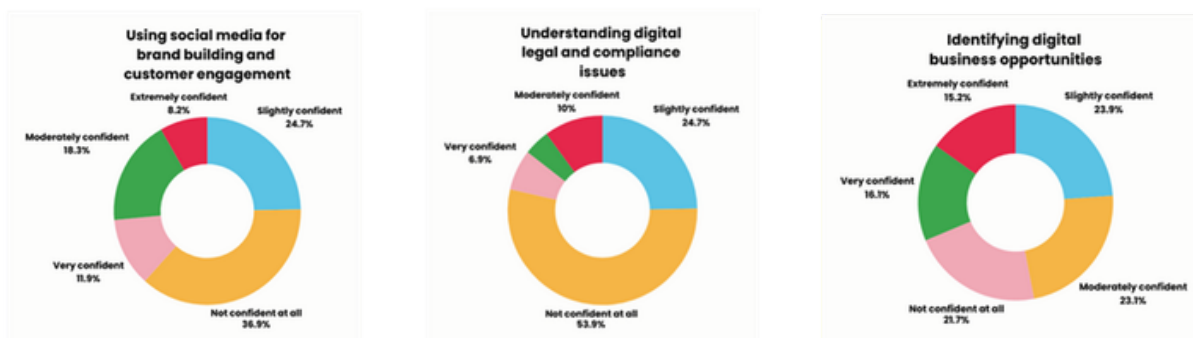


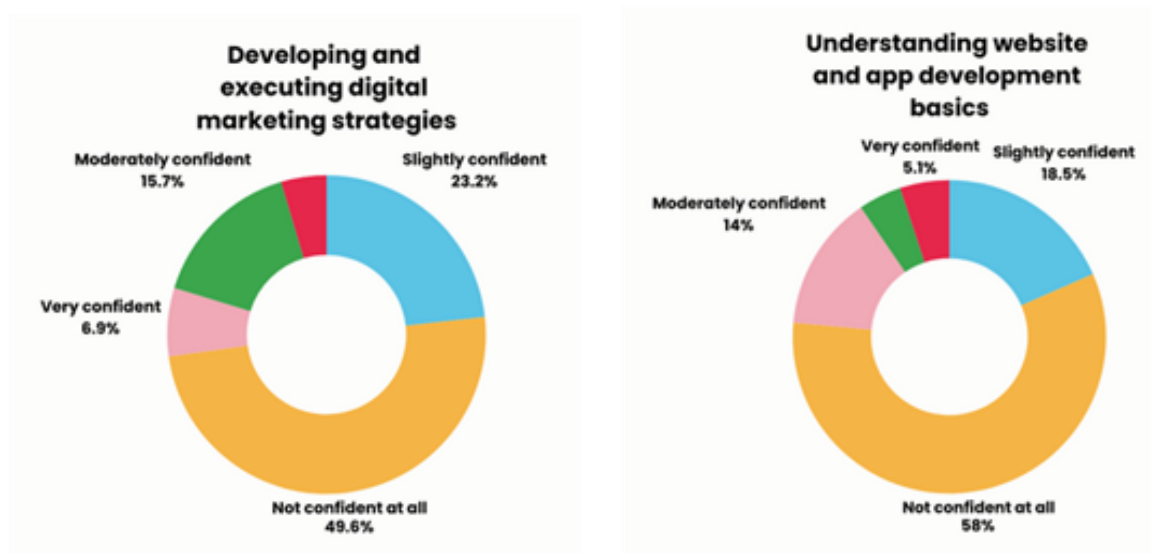
Respondents reported diverse occupational profiles. Informal employment accounted for 30.3%, while 31.3% were unemployed, indicating a significant demand for digital-skills training to improve employability and enterprise readiness. Students represented 21.6%, demonstrating strong interest from youth seeking pathways into the digital economy. Only 12.4% reported formal employment. These patterns showed that most participants operated outside stable labour markets, which underscores the relevance of Digiken's skilling and entrepreneurship support to populations relying on informal or transitional livelihood options. The largest proportion had completed secondary education, followed by those with diploma and university-degree qualifications. Others reported certificate-level training, while smaller groups indicated primary education, postgraduate studies, or no schooling.



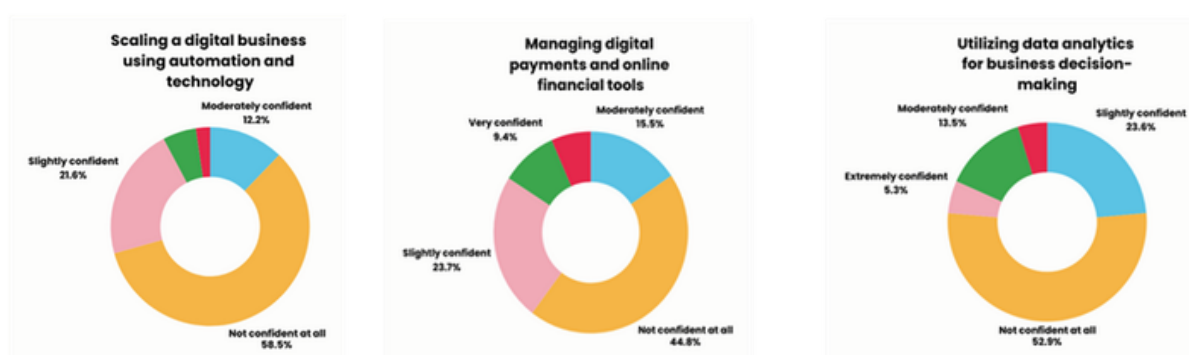
Digital Entrepreneurship

A significant proportion reported a limited ability to use social media for brand building and customer engagement: 36.9% were not confident at all, 24.7% were slightly confident, and 18.3% were moderately confident. Only 11.9% and 8.2% reported being very or extremely confident, respectively. This shows that many LNOBs were not yet able to use online platforms strategically to attract and retain customers. Understanding of digital legal and compliance issues was low, with a majority of 53.9% not confident at all, while 24.7% were slightly confident, 10% moderately confident, 6.9% very confident and only 4.5% extremely, highlighting limited awareness of the requirements needed for safe and compliant participation in digital markets. In contrast, identifying digital business opportunities showed relatively stronger capability, with only 21.7% not confident at all, while 23.9% were slightly confident, 23.1% moderately confident, 16.1% very confident, and 15.2% extremely confident, suggesting that many could recognise opportunities even though their ability to execute and operate within required frameworks was constrained.





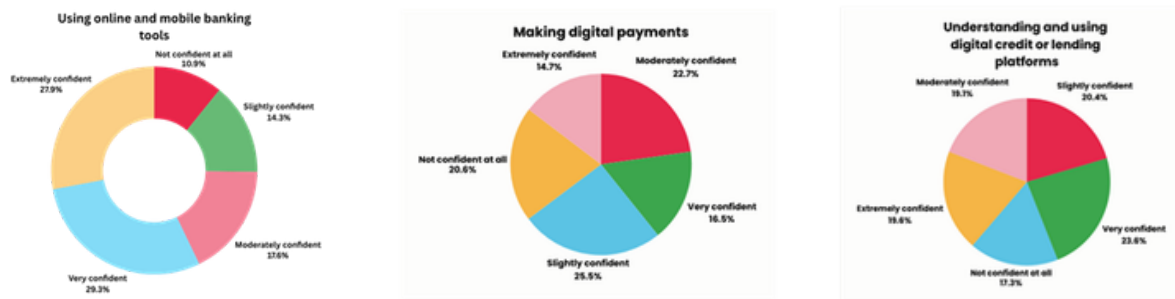
Confidence in scaling digital businesses using automation and technology was low, with 58.5% reporting not confident at all, while 21.6% were slightly confident, 12.2% moderately confident with only 5.4% very confident and 2.3% extremely, indicating limited readiness for technology-enabled business growth. In managing digital payments and online financial tools, 44.8% were not confident at all, with 23.7% slightly confident, 15.5% moderately confident, 9.4% very confident and 6.6% extremely confident, showing that although some familiarity existed, a large proportion still faced challenges in handling digital financial tools. Similarly, the ability to utilize data analytics for business decision-making was limited, as 52.9% reported not confident at all, while 23.6% were slightly confident, 13.5% moderately confident, 4.7% very confident, and 5.3% extremely confident, showing weak capacity to use data to guide business decisions.



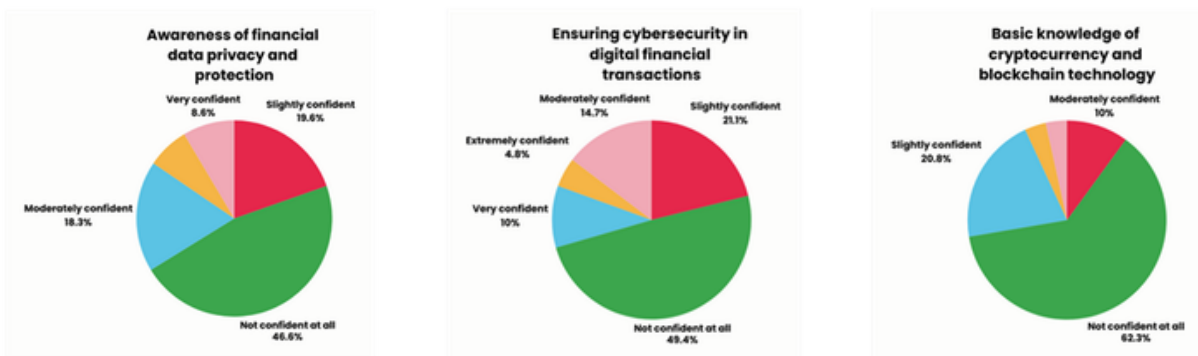
Digital Financial Literacy

A majority demonstrated strong ability in using online and mobile banking tools, with 29.3% very confident, 27.9% extremely confident, 14.3% slightly confident, 17.6% moderately confident, while only 10.9% were not confident at all, showing that basic digital banking functions were widely understood and used. Use of digital payments showed more varied capability, with 25.5% slightly confident, 22.7% moderately confident, 16.5% very confident, and 14.7% extremely confident, while 20.6% were not confident at all, showing uneven readiness in conducting digital transactions. Understanding and use of digital credit or lending platforms was fairly evenly distributed across the confidence levels, with 17.2% not confident at all,

20.4% slightly confident, 19.1% moderately confident, 23.6% very confident, and 19.8% extremely confident, which shows that engagement with digital credit platforms was present but not yet consistently strong across LNOB respondents.

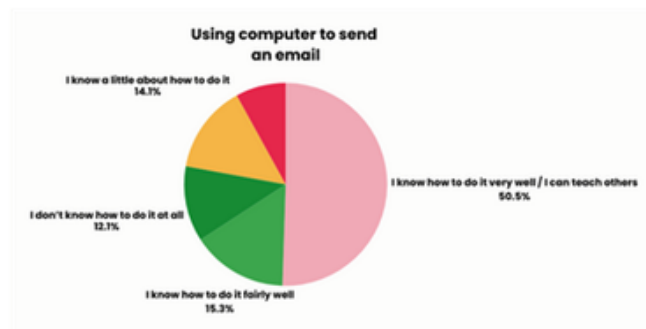
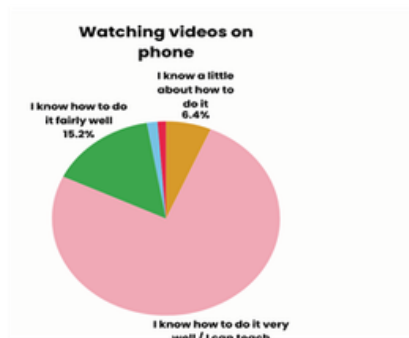


A significant majority reported limited awareness of financial data privacy and protection, with 46.6% not confident at all, 19.6% were slightly confident and 18.3% moderately confident. Those that reported to be very or extremely confident respectively represented 8.6% and 6.9%, highlighting gaps in the ability to safeguard personal and financial information in digital spaces. Readiness to ensure cybersecurity in digital financial transactions was also low, with 49.4% not confident at all, while 21.1% were slightly confident and 14.7% moderately confident. Only 10% reported to be very confident and 4.8% extremely confident, showing that many were not adequately prepared to manage risks associated with online financial activities. Basic knowledge of cryptocurrency and blockchain technology remained particularly low, with 62.3% not confident at all, while 20.8% were slightly confident and 10% moderately confident. Those who indicated they were very or extremely confident accounted for 3.5% and 3.4%, respectively, reflecting minimal exposure to emerging digital financial systems.

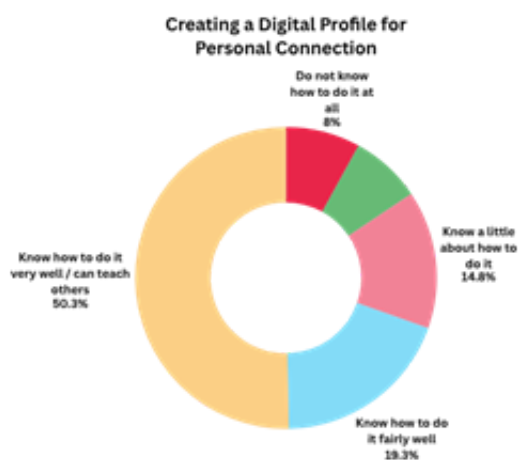


Media Literacy

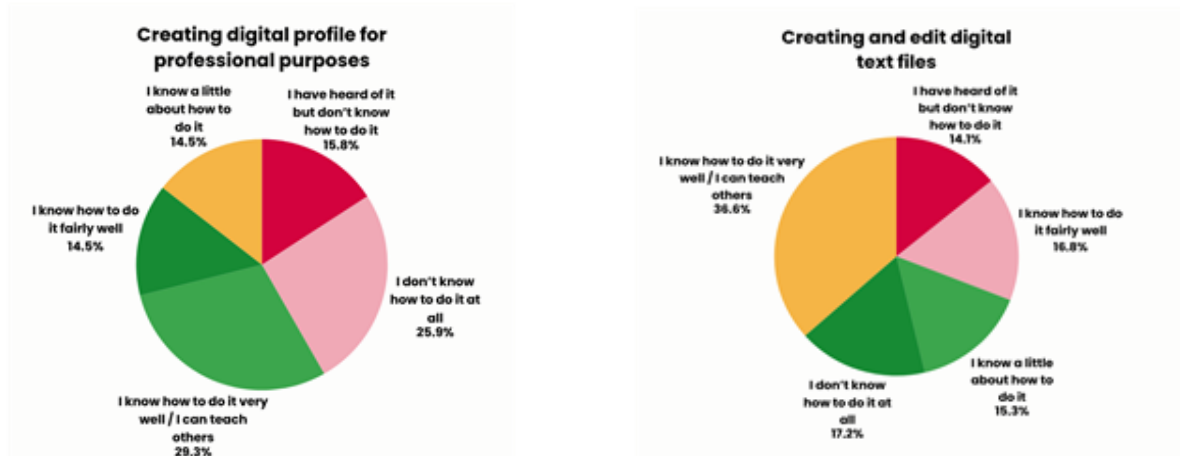
Watching videos on phone showed very high capability, 75.7% reporting they knew how to do it very well or could teach others, 15.2% knew how to do it fairly well, 6.4% knew a little about how to do it, 1.5% had heard of it but did not know how to do it while 1.2% did not know how to do it at all, indicating that basic mobile content consumption was widely established with very few reporting low ability. Using a computer to send an email showed strong capability, with 50.5% reporting they knew how to do it very well or could teach others, while 15.3% knew how to do it well and 14.1% knew a little about how to do it. At the same time, 12.1% did not know how to do it at all, and 8% had only heard of it but did not know how to do it, showing that a small segment still lacked basic email use skills.



Creating a digital profile for personal connection showed strong capability, with 50.3% reporting they knew how to do it very well or could teach others, while 19.3% knew how to do it fairly well and 14.8% knew a little about how to do it. At the same time, 8% did not know how to do it at all and 7.6% had heard of it but did not know how to do it. This shows that personal digital presence skills were well established for the majority of LNOBs. Looking for directions using a phone also showed relatively strong practical ability, with 40.9% reporting they knew how to do it very well or could teach others, while 20.1% knew how to do it fairly well and 14.4% knew a little about how to do it. In addition, 12% had heard of it but did not know how to do it, while the remaining 12.7% did not know how to do it at all, showing that although phone navigation skills were common, a notable segment still lacked this everyday digital capability.

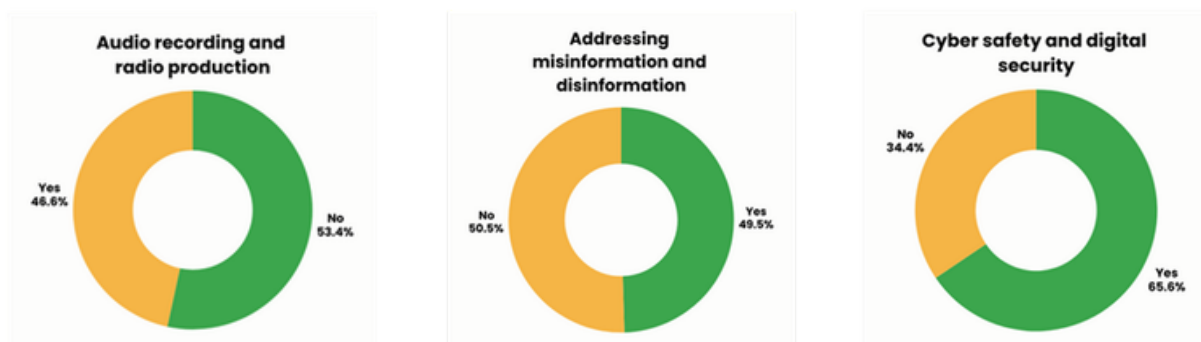


Creating a digital profile for professional purposes showed uneven capability, with 29.3% reporting they knew how to do it very well or could teach others, while 14.5% knew how to do it fairly well and 14.5% knew a little about how to do it. At the same time, 25.9% did not know how to do it at all and 15.8% had heard of it but did not know how to do it, showing that professional digital identity skills were still not yet widely established across respondents. Regarding to creating and editing digital text files, 36.6% reported they could do it very well or teach others, while 16.8% knew how to do it fairly well and 15.3% knew a little about how to do it. However, 17.2% did not know how to do it at all and 14.1% had only heard of it but did not know how to do it, highlighting that although a majority had strong capability, basic text editing skills were still unevenly distributed.

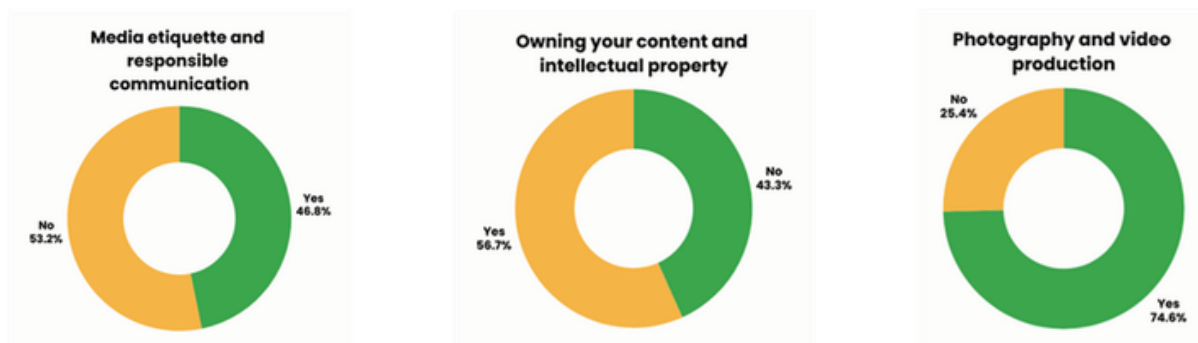


LNOBs expressed strong interest in a wide range of media-related skills, with varying emphasis across the different areas assessed. 46.8% indicated interest on training in audio recording while 53.2% were not interested, showing that nearly half of the respondents viewed audio-based content creation as a valuable skill. Interest in addressing misinformation and disinformation was higher, with 49.5% expressing interest and 50.5% not expressing interest, indicating that many respondents recognised the need to navigate misleading content, particularly in digital environments. Cyber safety and digital security generated substantial interest, as 65.6% indicated they wanted training, reflecting strong awareness of online risks and the importance of digital protection skills.

Participation in audio recording and radio production was limited, with 53.4% reporting no experience, while 46.6% reported yes, showing that slightly more than half had not engaged in this skill. Ability to address misinformation and disinformation was evenly distributed, with 50.5% reporting no and 49.5% reporting yes, showing that nearly half of the respondents were not equipped to identify or respond to false information in digital spaces. In contrast, awareness of cyber safety and digital security was relatively higher, with 65.6% reporting yes and 34.4% reporting no, showing that a majority had some level of awareness, although a notable proportion still lacked these skills.

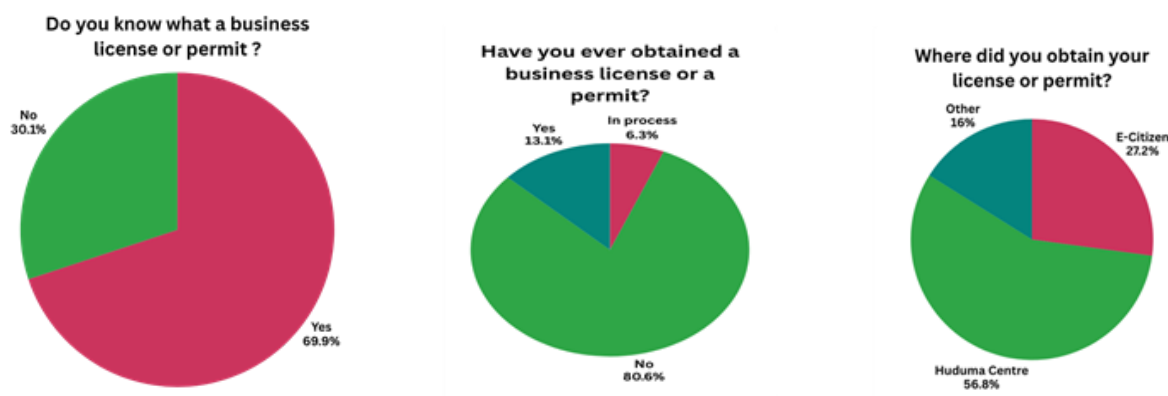


Understanding of media etiquette and responsible communication was limited, with 53.2% reporting no and 46.8% reporting yes, showing that more than half were not equipped with appropriate practices for responsible digital engagement. Ownership of content and intellectual property showed relatively higher awareness, with 56.7% reporting yes and 43.3% reporting no, indicating that a majority had some understanding, although a substantial proportion still lacked the knowledge. Participation in photography and video production was high, with 74.6% reporting yes and 25.4% reporting no, showing that a strong majority had experience in content creation skills.



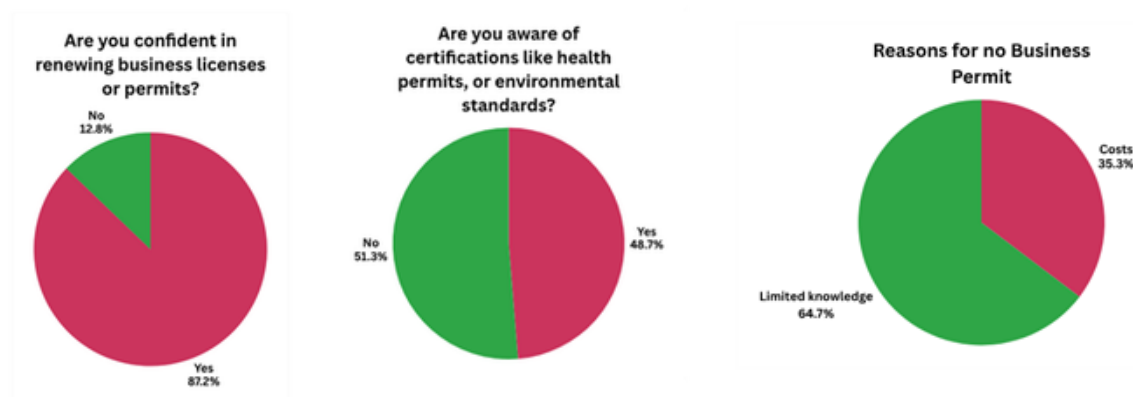
Regulatory Compliance

Awareness of business licensing or permit requirements was at 70%, while 30% reported no awareness, which means that basic knowledge of formalisation processes was present among a majority of LNOB respondents. However, this awareness had not translated into actual uptake, since 80.6% had never obtained a business license or permit, 13.1% had obtained one, and 6.3% were in the process. Among those who had obtained a license or permit, 56.8% accessed the service through Huduma Centre, 27.2% through E-Citizen, and 16% through other channels, which points to continued reliance on physical public service centres for business licensing.



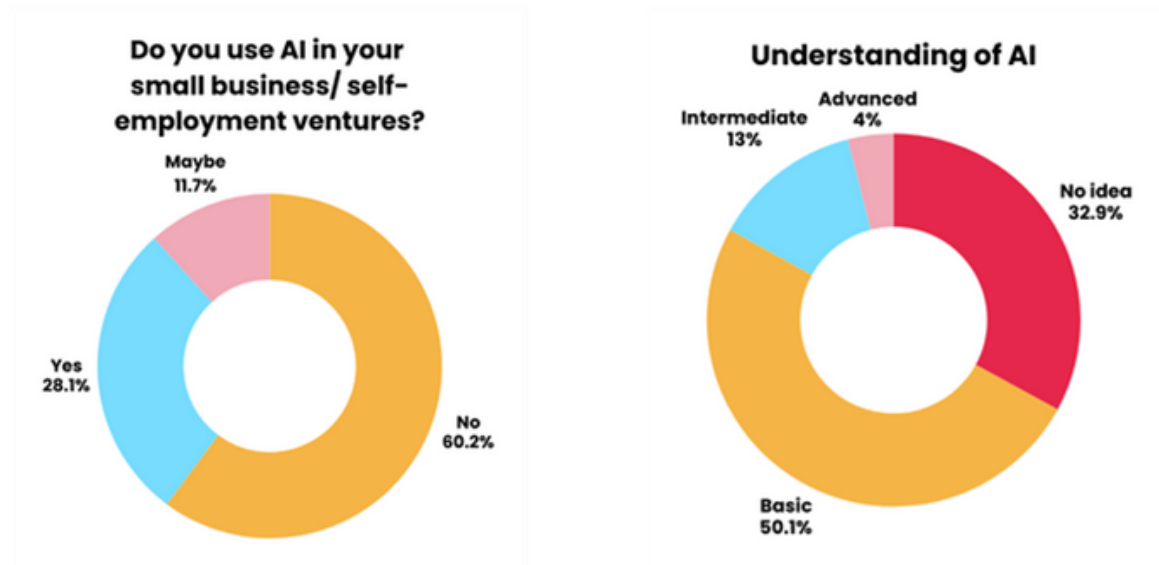
Confidence in renewing business licenses or permits was high among those who had engaged with the process, with 87.2% reporting to have confidence and only 12.8% reporting no confidence, which suggests that once respondents entered the formalisation system, the renewal process was generally well understood. Awareness of additional certifications such as health permits or environmental standards was lower, with 51.3% reporting no awareness compared to 48.7% that reported having awareness. This highlights a knowledge gap in sector specific compliance requirements beyond basic business registration.

Among respondents without a business permit, 64.7% cited limited knowledge as the main reason, while 35.3% cited costs, which identifies information barriers as a stronger constraint than financial barriers in progressing toward business formalisation.



Artificial Intelligence

AI use among LNOB respondents was limited, although interest and exposure varied across different aspects of AI-assisted work. When asked whether they used AI in their small businesses or self-employment ventures, 60.2% reported not using AI, 28.1% said they did, and 11.7% were unsure, showing that only a small proportion had integrated AI tools into their economic activities, while many were not yet aware of whether their digital tools counted as AI-enabled. Understanding of AI also reflected early-stage familiarity. AI literacy was largely concentrated at the foundational level, with 50.1% of respondents reporting a basic understanding of AI, while 32.9% reported having no idea. Only 13.0% indicated intermediate understanding, and 4.0% reported advanced knowledge, showing that advanced comprehension and familiarity with AI was limited. This suggests that although general awareness of AI is beginning to take root, progression into deeper conceptual and practical understanding is still low, which may constrain the ability of respondents to move from awareness into meaningful adoption for digital livelihoods, entrepreneurship, and problem-solving.

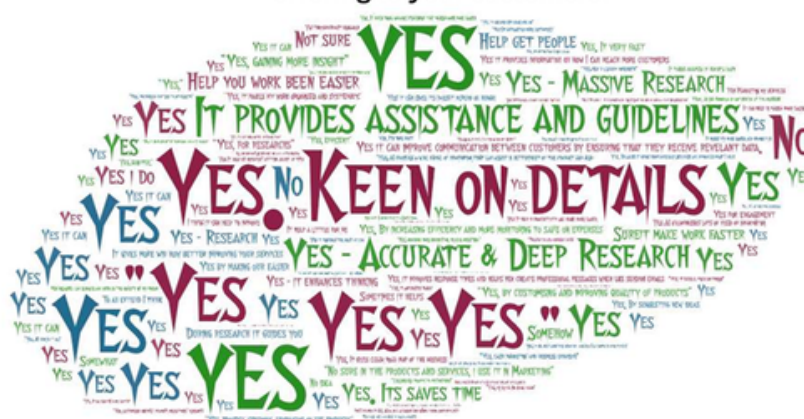


For those that had an understanding of AI:

Majority of this category perceived it as having practical value for improving service delivery and product quality, while only a limited number expressed uncertainty or stated that they did not yet see a direct benefit. The dominant explanations linked AI to faster workflows, easier access to information, improved research, automation of repetitive tasks, and stronger customer communication. Several respondents also connected AI to better marketing, idea generation, and more professional presentation of outputs which suggests that its perceived usefulness extended beyond efficiency into business growth and service enhancement.

A smaller subset of responses pointed to partial or context-specific usefulness, particularly where participants were unsure how AI applied to their sector or products. This suggests that while positive perceptions were widespread, the depth of understanding of sector-specific AI applications still varied across respondents, pointing to the need for more practical exposure on how AI can be embedded into different business functions. A small minority expressed uncertainty regarding AI's applicability to their specific products or services, indicating that awareness of practical use cases remains uneven across sectors

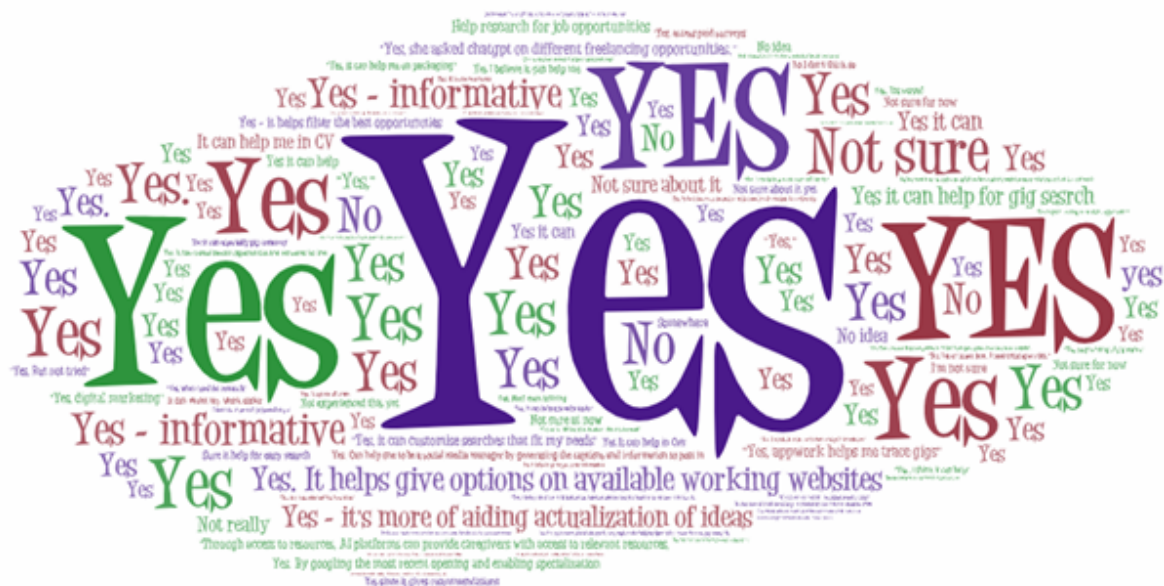
Do you believe AI can improve the quality of the services/ product offering to your customers?



Most respondents with knowledge of AI viewed it as a practical enabler for accessing digitally enabled opportunities, particularly online gigs, remote work, freelancing, and platform-based income opportunities for youth, women, and caregivers. The most frequently cited pathways included identifying relevant gig platforms, filtering suitable opportunities, improving CVs and applications, supporting digital marketing work, and guiding users on how to enter freelance ecosystems such as Upwork and online writing platforms. Several responses also associated AI with personalised recommendations, faster opportunity searches, and skill support for completing gig tasks once secured, suggesting that respondents saw AI as relevant across both opportunity discovery and task execution stages.

At the same time, some respondents expressed uncertainty, lack of practical experience, or the need for further training on how to translate AI use into real income opportunities. This shows that while the perceived potential of AI for inclusive digital livelihoods was widely recognised, the ability to convert that awareness into actual participation in the gig economy still depended on practical exposure, platform literacy, and guided application of AI tools.

Do you feel AI can help you access digitally enabled opportunities



4. Qualitative perspectives from the regional Hubs

4.1 Contextual factors affecting Mapping and Data Collection

Hubs were expected to map beneficiaries that would take up the training, through online calls, posters on in-person events. Various Hubs differed in their approach for mapping. Hubs like Africa Media Hub and PC Kinyanjui used existing collaborations with Nairobi County organizations such as Youth Centers and PWD groups to promote the project and register beneficiaries. Others like Godoma TTI Hub in Kilifi mapped potential trainees using a standardized digital questionnaire. This was due to the vast geographical spread that made physical visits costly and time-consuming. Kijiji Connect ICT Hub in Tana River County used its partnership with Kenya Women finance Trust (KWFT) to map out female MSMEs.

Northern Hubs such as Mandera Innovation Hub (Mandera) and Northern innovation Hub (Garissa) found it necessary to have door-to-door visits as well as collaborate with local Mosques and religious leaders to spread information about the program and get potential learners to sign up. This approach was especially crucial to establish trust in cases where people have occasionally been skeptical of external programs.

TOTs from WiseHub in Kisumu found that some participants exhibited distrust toward the authenticity of the DigiKen training initiative, especially during phone interviews. Respondents expressed concerns about whether the assessment was a legitimate exercise, and this led to uncertainty in sharing personal or business information. In one case, a respondent requested formal verification from DigiKen prior to continuing the interview. This type of skepticism often lengthened interview sessions or caused respondents to withdraw entirely, constraining the pool of valid data.

This challenge was also experienced by TOTs from the Nambale Digital Innovation Hub (Busia County) who noted that residents were skeptical about surveys or sharing information, especially since the enumerators did not have any type of identification (badges/t-shirts) as Trainers under DigiKen. This forced the Hubs to rely on the existing goodwill of partners and fellow hubs to gain respondents.

Hubs that conducted in-person interviews often grappled with travelling long distances and having to wait for the respondents to finish their work activities to respond to the interviews. For example, in West Pokot, the poor state of roads and long travel distances to remote areas like Chesegon and Cheptulel significantly slowed down the process and increased operational costs. In Busia, heavy rainfall and flooding disrupted movement and slowed down physical interviews. This was also the case in West Pokot, where occasional afternoon rains disrupted planned barazas and forced some sessions to be rescheduled or moved to makeshift shelters.

TOTs from Othaya NGCDF-AYEC in Nyeri reported that poor network coverage affected telephone interviews. This was also an impediment for TOTs from the Swahilipot Hub Foundation in Mombasa, who found that some respondents were in noisy environments, which affected audio clarity. Moreover, TOTs had to go out of their way to conduct calls early in the morning or late at night to accommodate respondents' availability and avoid dropping calls midway due to competing priorities.

From Kilifi Innovation Hub, the strongest contextual factor affecting data collection was spatial exclusion linked to county vastness and marginalized locations. The hub reported that respondents in sub-counties such as Rabai, Ganze, and Magarini were difficult to reach because of poor cellular network coverage and long travel distances, forcing the team to rely mainly on phone calls and previously mapped applicants rather than physical follow-up. This meant that some interviews were cut short; others were never completed, and the respondent's pool remained constrained to those who could pick calls or had already accessed the online application channels.

Lake Hub noted that unstable connectivity, high cost of internet bundles, and respondents' difficulty navigating digital tools and concepts slowed the data collection process. Many respondents required repeated clarification, especially during phone and virtual interviews, while some were only available during evenings or weekends, requiring flexible scheduling by ToTs.

Hubs like The Tegla Loroupe Skills-Based Training Centre in West Pokot found that it was a challenge to manage respondents' expectations of financial compensation. This was due to past experience where respondents had received a stipend for participating in surveys. Additionally, the Hub also encountered initial skepticism about the program's long-term commitment, with community leaders questioning if the assessment would lead to tangible benefits.

4.2 Stakeholder perceptions and expectations

Participants who were interviewed in various parts of the country demonstrated high expectations from a digital literacy project. For example, a youth respondent from Dagoretti interviewed by the Africa Media Hub, claimed that although many young people like himself were aware of online jobs, they still needed guidance on how to apply for such opportunities.

Most potential beneficiaries hoped for practical digital skills training with immediate application; this was especially true for young people who expressed a high interest in freelancing and earning through digital platforms. Furthermore, most hubs found that the young people interviewed perceived digital skills as an opportunity while the older community members perceive it as complex and distant from their day to day lives. A good example is in Nyeri, where men aged 35+, showed minimal interest and suggested giving the opportunity to their children instead as they were already old. One particular respondent was recorded as saying "I am 40+,.....what else can I add to my expertise?"

West Pokot also recorded similar findings among the youth, with most of those interviewed expressing a clear understanding of how digital skills are crucial for modern job opportunities and communication. However, they also wanted reassurance that the DigiKen training would directly link them to income generation opportunities. One such youth was recorded as asking "Will this training help me get a job online?"

In Mandera, the enumerators observed that majority of the young people were from four leavers with secondary school education but no further training or employment.

Women respondents in multiple hubs emphasized the need for flexibility in training schedules to balance family duties with learning. Additionally, older women seemed more cautious about getting involved in online business. For example, a female respondent from Kasarani expressed her fear of operating online due to previous experience. She was recorded as saying "I tried to sell my products online, but someone copied my photos and started a fake page."

TOTs from PC Kinyanjui Hub in Nairobi reported that respondents living with a disability were curious as to whether their learning needs would be catered to especially in online learning. One of the PWD representatives noted that normally training venues are not accessible for learners with disabilities and the pace of training may be too fast for some PWD learners. A respondent interviewed at Mariakani (Godoma TTI Hub) suggested that learners who were selected for the program should all meet together for the initial classes, so as to offer each other moral support even as the program gradually goes online.

4.3 Barriers to Digital Adoption and Use

The most common observation was the issue of access to internet connectivity either through Wifi or data; multiple respondents were okay with online training with some suggesting that they would appreciate provision of data bundles. Multiple Hubs also reported that respondents had limited Access to devices with a high percentage of those interviewed owning basic feature phones rather than smartphones or laptops an aspect that would restrict their ability to engage with online content or training. In some marginalized areas, respondents noted that they did not have electricity and had to charge their phones at the nearest town center.

There was limited English proficiency across all the regions, especially among marginalized respondents. In Garba Tulla and Merti, for example, respondents required translation into Swahili or Borana for effective communication. Similarly in Kilifi, respondents who had Primary or some secondary level of education preferred to engage in Swahili.

In counties such as Tana River, there was a gender imbalance in the number of applicants as significantly more men applied than women. While in others such as Isiolo, the number of young people interested in the program often outnumbered the mapping targets. Most of these youths demonstrated "passive consumption" skills (browsing social media, watching videos) but showed limited "active creation" capabilities (creating digital content, setting up e-commerce stores, using productivity tools).

5. Hub-level recommendation to support program intervention

5.1 Conduct community entry meetings and orientation sessions: To reduce skepticism and maintain engagement, multiple Hubs suggested holding community entry meetings through local leaders. Additionally, respective County Governments should be involved, specifically the departments of ICT and Youth Affairs. This partnership should be geared towards co-hosting training sessions, providing venue support, and integrating the program into county youth empowerment initiatives to ensure sustainability and wider reach, and to reassure potential learners that the DigiKen program is legitimate.

5.2 Design women-specific interventions: To address cultural sensitivities and build confidence, there should be an option to create women-only training cohorts. These cohorts would allow hubs to schedule training during hours that accommodate childcare responsibilities and address gender-based digital divide through targeted support.

5.3 Establish a device-lending library: To address the challenge of device accessibility, the program should explore establishing a device lending library at the hub or partnering with organizations that provide affordable, financed smartphone options for beneficiaries.

5.4 Mobile training Labs: To address the challenge of accessibility, especially for women, the program can consider deploying mobile training labs (e.g., a van equipped with devices and a trainer) to rotate through the most remote wards, reducing travel burdens for beneficiaries.

5.5 Economic subsidy for online data: during training, provision of weekly/monthly data bundles and a modest stipend can ensure sustained engagement and continued achievement of the Program goals.

5.6 TOT Branding and identification badges: To ensure that the trainers have validity, the program should provide branded identification badges and other merchandise so as to provide protection and continuous awareness of the program.

6. Conclusion

This needs assessment revealed substantial disparities in digital readiness, digital entrepreneurship capability, financial literacy, media literacy, artificial intelligence adoption, and regulatory awareness among MSMEs and LNOB groups across the targeted counties. While Kenya's national digital ecosystem continued to expand, the findings showed that many of the most vulnerable and economically active groups still faced structural limitations that hindered their participation in the digital economy. Women, youth, persons with disabilities, informal workers, and unemployed respondents displayed strong interest in digital opportunities, yet their confidence and competencies across key digital domains remained uneven and, in many areas, significantly limited.

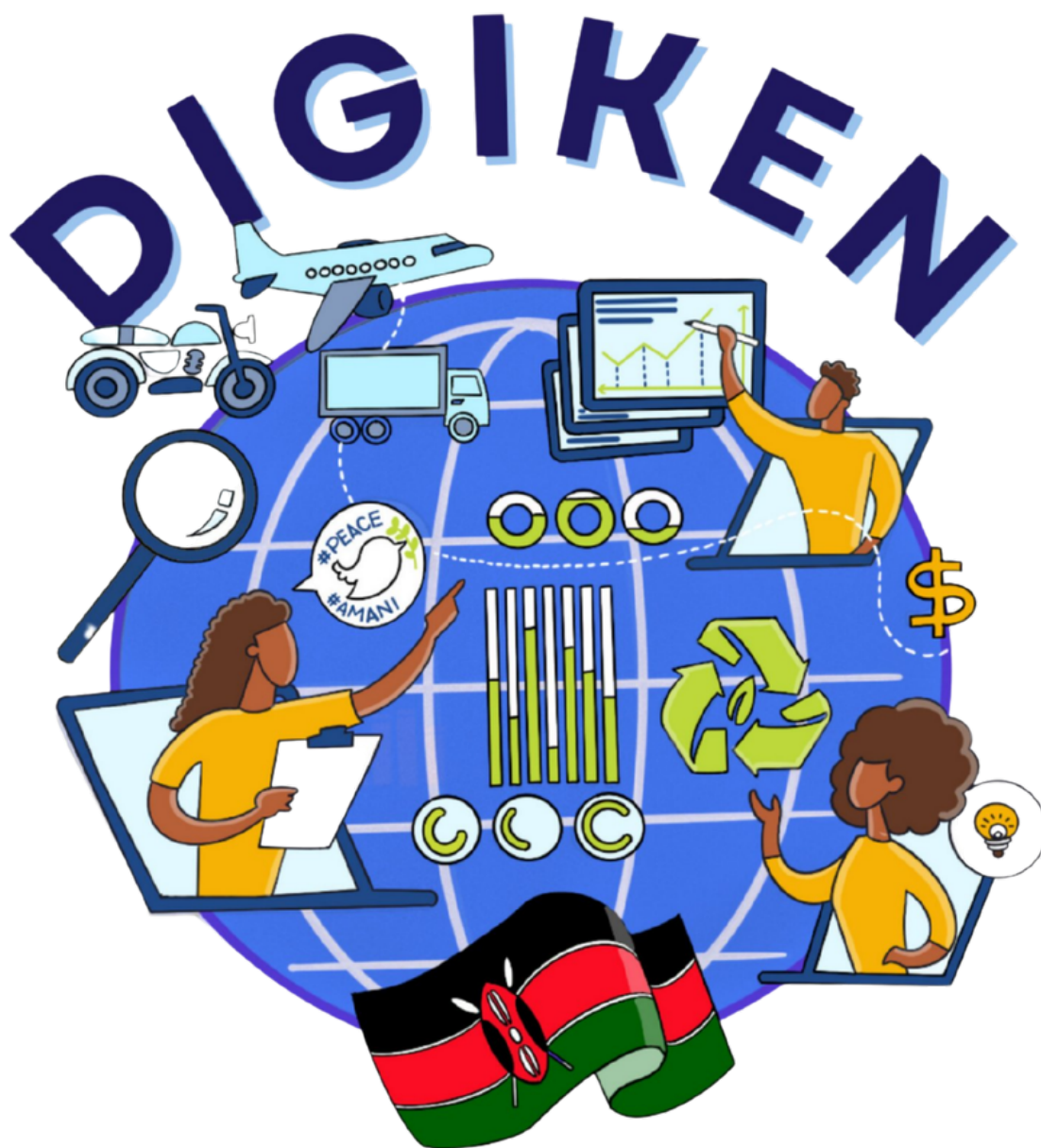
MSMEs demonstrated higher levels of digital and financial exposure than LNOB respondents, particularly in mobile banking, digital payments, and basic media-use functions. However, both groups struggled with more advanced competencies such as digital marketing, data analytics, automation, web and app development, and navigating digital legal and compliance requirements. Awareness of intellectual property rights and registration processes remained low across both cohorts, illustrating a critical vulnerability in protecting creative and business assets. Regulatory compliance also presented challenges, as many lacked business licenses, certifications, and a clear understanding of environmental or operational standards, despite showing high confidence in tasks such as license renewal.

Media literacy patterns further highlighted a divide between basic digital familiarity and more technical or professional tasks. Respondents were highly capable in routine digital actions like watching videos or sending mobile money, yet many lacked the skills needed to create professional digital profiles, edit digital documents, manage media metrics, or respond to digital threats such as misinformation and online harassment. Interest levels in acquiring new media-related skills were strong, particularly in photography and video production, cybersecurity, and media etiquette, signaling readiness for targeted capacity-building.

Artificial intelligence presented the widest capability gap but the strongest optimism. Although most respondents rated their AI experience as basic or nonexistent, the overwhelming majority believed AI had the potential to improve profits, enhance product or service quality, and personalise customer experiences. This positive perception, despite limited adoption, indicated a strong opportunity for DigiKen to introduce foundational and intermediate AI skills as part of its long-term programming.

These findings highlight the need for comprehensive, locally anchored digital skilling interventions that go beyond introductory training. Respondents require not only technical skills but also business-development support, financial literacy, entrepreneurial coaching, intellectual property awareness, and assistance navigating regulatory frameworks. Innovation hubs emerge as critical delivery points for these services, given their proximity to communities and their ability to provide continuous mentorship, safe learning environments, and access to digital infrastructure.

By addressing the gaps identified in this assessment, the DigiKen Program is positioned to strengthen Kenya's digital inclusion agenda, expanding opportunities for MSMEs, empowering LNOB communities, and enhancing the resilience and competitiveness of grassroots innovators. Targeted, demand-driven training and support delivered through digital innovation hubs will play an essential role in ensuring that Kenya's digital transformation is not only technologically advanced but also equitable, participatory, and sustainable.



Photos from Participating Hubs



Annex I: List of Participating Hubs

1. The Africa Media Hub was established in 2017 at Strathmore University to advance capacity building, research, and innovation in media, digital communication, and civic technology.

2. Godoma Technical Training Institute (TTI) Hub was officially launched in December, 2023 under the Jitume Program, a government initiative aimed at enhancing digital inclusion across Kenya. Hub is based at Sokoke, in Ganze Sub-County of Kilifi County, and its coverage extends across four of the seven sub-counties in Kilifi county: Ganze, Kaloleni, Rabai, and Malindi.

3. The Isiolo Youth Innovation Centre was officially launched on 8 October 2020 through a partnership between the Kenya School of Government, United Nations Development Programme (UNDP), and the County Government of Isiolo. The idea of the Hub was conceived in 2017 when local leaders recognized a need to empower young people and engage them in productive activities.

4. Kijiji Connect Ict Hub was established in 2016 through a partnership between The Sentinel Project and Amani Center CBO as a continuation of the Una Hakika peace initiative in Tana River County, Kenya. It was created to promote peace and empower communities affected by conflict through access to technology and skills.

5. Kilifi Innovation Hub was established in 2023, after the inaugural Kilifi Innovation and Business Summit, where the need to establish a centre to empower innovators was deeply highlighted. The Hubs goal is to enable everyone to tap into opportunities in green-blue economy, entrepreneurship, innovation, skills and talent development and promote climate resilience initiatives

6. Lake Hub Foundation was founded to empower African youth by equipping them with essential skills and resources: Through its Academy (Zone 01 Kisumu), LakeHub offers an intensive, inclusive, teacherless 2-year tech training program with a peer-to-peer, gamified, and self-paced learning model that produces competent full-stack software engineers. LakeHub champions female empowerment in tech through dedicated events and programs like FemiDev for girls and young women. Additionally, LakeHub participates in green initiatives, exemplified by the Kijani Space Project, a consortium committed to a greener future in Africa.

7. The Mandera Innovation Hub, established in 2024 by the Mandera County Government, aims to empower youth, women, and persons with disabilities (PWDs) with essential digital skills, entrepreneurial skills, and financial literacy skills. Before the establishment of the hub, Mandera had no such ICT center dedicated to innovation, training, and digital skills development. The hub therefore serves as a pioneer institution, filling a critical gap in empowering the youth through technology-driven opportunities

8. The Nambale Digital Innovation Hub, was officially operationalized in early 2021 following the easing of COVID-19 restrictions. Since its establishment, the hub has played a pivotal role in empowering and equipping young people with essential digital skills to thrive in an increasingly digital economy. The hub's primary target audience is youth -especially young women-seeking to build their capacity and participation in the digital space. Its programs focus on digital literacy, entrepreneurship training, and virtual skills development necessary for effective participation in the gig economy.

9. Northern Innovation and Empowerment Hub (NieHub) was conceptualized in 2019 to support and empower youth, girls, and women in Garissa, Wajir, and Mandera counties through ICT skills, social entrepreneurship, mentorship, as well as career and job training. Since its establishment, NieHub has positioned itself as a beacon of digital transformation in the Northeastern region, addressing the unique challenges faced by communities in this historically marginalized area.

10. Othaya NGCDF-AYEC was established in September 2021, to equip Youths of Othaya Constituency and Nyeri County at large with marketable, industry-driven skills in digital, software, and technological fields. The hub's main areas of focus are on digital skills training, including digital marketing, content writing, virtual assistance, Transcription, Data Entry, and Computer packages.

11. The PC Kinyanjui Technical Training Institute Jitume Digital Skills Innovation Hub is a dynamic digital empowerment center established in September 2023 as a key implementation node for national digital transformation programs, including the Ajira Digital Program and the Jitume Digital Hub Initiative. The hub is hosted within the PC Kinyanjui Technical Training Institute, a public TVET institution renowned for providing market-driven technical and vocational education

12. Swahilipot Hub Foundation was established in 2016 as a creative and technology innovation space in Mombasa. The hub focuses on digital literacy, youth empowerment, entrepreneurship, innovation, and community inclusion. Its target beneficiaries include young people (18–35 years), women, MSMEs, and persons with disabilities. Through community projects and training initiatives, Swahilipot Hub has become a leading driver of digital transformation and employability along Kenya's coast

13. The Tegla Loroupe Skills-Based Training Centre was established in 2024 by world-renowned athlete Tegla Loroupe to promote peace and socio-economic development in the North Rift region. The hub's primary mission is to empower vulnerable communities, with a specific focus on youth, women, and outof-school children. The Centre's main areas of focus are; Vocational and Skills Training, Peacebuilding and Sports, Digital Literacy and Innovation.

14. WiseHub is an innovation and sustainable entrepreneurship hub based in Kisumu County focused on empowering women, youth, PWDs and MSMEs in the Lake Victoria Basin. Established in 2016 and registered in 2021, WiseHub's mandate includes digital literacy, sustainable enterprise development, green innovation, and blue economy initiatives. The hub works with community groups, local governments, and development partners to enhance economic opportunities for marginalized populations

Questionnaire

Hub and ToT Details

2. Name of the Hub
3. Name of the TOT
4. County

LEARNER DEMOGRAPHIC INFORMATION

5. Name of respondent
6. Phone number of respondent
7. Are you the household head?
8. Age of the respondent (years)
9. Gender of the respondent
10. What is the highest level of education?
11. Occupation
12. Are you currently disabled?
13. If yes, select the nature of your disability (select all that apply; based on international standards)
14. Please indicate if you belong to any of the groups below
15. Are you a(n): MSME owner or representative, Member of a vulnerable or LNOB group
 - 16a. What do you hope to get out of attending a digital literacy program?
 - 16b. If other reasons, please list

16c. Digital Financial Literacy Confidence Rating

Please rate your level of confidence in the following areas:

- Scaling a digital business using automation and technology
- Raising capital through digital platforms (crowdfunding, fintech)

17a. Which areas of digital financial literacy would you be most interested in?

17b. If others, please specify

17c. Which areas do you feel you need additional training in to manage digital business operations effectively?

17d. If others, please specify

BUSINESS AND FINANCIAL LITERACY

18. Media Information Literacy Skills
Please rate the extent to which you agree with the following:
 - I know how to send money through my phone
 - I watch videos on my phone
 - I know how to use a computer/laptop to send an email
 - I know how to look for directions using my phone (Google Maps)
 - I know how to create a digital profile for personal connection (Facebook, X, Instagram)
 - I know how to create a professional digital profile (LinkedIn)
 - I know how to create and edit digital text files (Word, PDF)
19. Business and Financial Literacy Skills
Please rate your ability to:
 - Using online and mobile banking tools
 - Making digital payments (e.g., QR codes, mobile wallets, online checkout)
 - Using personal finance management apps (budgeting, expense tracking)
 - Understanding and using digital credit or lending platforms (e.g., M-Shwari)
 - Basic knowledge of cryptocurrency and blockchain technology
 - Identifying and avoiding digital financial scams or fraud
 - Ensuring cybersecurity in digital financial transactions
 - Awareness of financial data privacy and protection
 - Knowledge of consumer rights and financial regulations online

16d. Digital Entrepreneurship Confidence Rating

Please rate your level of confidence in:

- Identifying digital business opportunities
- Building and managing e-commerce platforms
- Developing and executing digital marketing strategies
- Understanding website and app development basics
- Using social media for brand building and customer engagement
- Utilizing data analytics for business decision-making
- Managing digital payments and online financial tools
- Understanding digital legal and compliance issues

- Use e-Citizen
- Get jobs/contracts through the internet
- Keep sales records
- Calculate business profitability

20. Who do you trust for financial advice?

21. Who do you go to for business advice?

22. Have you received any business training?

23. If yes, from whom?

24. What type of training have you received?

25. Have you registered your business?

26. If yes, which platform did you use?

27. If yes, did you receive assistance?

28. How do you get information about your customers/market?

29. Do you sell your products/services online?

30. If yes, which internet platforms do you use?

31. Do you have a website?

INTELLECTUAL PROPERTY LITERACY

IP means anything original that you create using your mind (e.g., bead patterns, decoration designs).

32. Awareness of Intellectual Property Rights
Rate your awareness of the following:

- Patents
- Utility Models
- Trademarks
- Copyrights
- Trade Secrets
- Plant Varieties

- Traditional Knowledge & Cultural Expressions
 - Geographical Indications
33. Do you currently hold any Intellectual Property Rights (IPRs)?
 - 34a. If yes, indicate the types and total numbers:
 - Industrial design
 - 34b. Utility model (number)
 - 34c. Trademarks (number)
 - 34d. Industrial design (number)
 - 34e. Copyrights (number)
 - 34f. Trade secrets (number)
 - 34g. Plant variety (number)
 34. How do you currently keep your ideas or designs safe from being copied?
 35. What is your level of knowledge on the IP registration process in Kenya?
 36. Do you understand the importance of IP to your business?
 37. Have you or your business been involved in an IP-related legal dispute?
 38. If yes, what was the outcome?
 39. Has your business ever obtained permission (a license) to use someone else's IP?
 40. Has your business ever given permission (a license) for others to use its IP?
 41. What difficulties does your business face in managing IP?
 42. What support would help your business better manage IP?

LNObS: ARTIFICIAL INTELLIGENCE (AI)

59. How would you rate your current level of experience with smart digital/AI apps?
60. Do you use AI in your business?
61. If yes, which AI tools do you use?
62. If no, why not?
63. What documents do you upload to AI platforms?
64. Where in your business do you use AI systems?
65. What data do you provide to AI platforms?
66. Can AI improve the quality of services/products offered to customers?
67. Can AI create more personalised products?
68. If yes, why?
69. If no, why not?
70. Can AI assist business profits?
71. Is your infrastructure stable enough to support AI technologies?
72. Does your business use the following?
 - Smartphone
 - Feature phone
 - Internet
 - Laptop
 - Desktop
 - Wearable device
 - Document server (Google Docs)
 - Website
 - Email system
73. Do you have adequate hardware to support AI?
74. Is AI a threat to your business profits?
75. Do you face constraints accessing AI hardware/software?
76. If yes, what are these constraints?
77. Do you struggle to find skills needed to implement AI?
78. If yes, which skills?

45. Do you use AI in your small business/self-employment ventures?
46. What is your understanding of AI?
47. Which AI tools do you use?
48. Where in your business do you use AI?
49. What data do you provide to AI platforms?
50. Do you believe AI improves your products/services? Explain.
51. Can AI help you access digitally-enabled opportunities? Explain.
52. Is AI a threat or an enabler in your business? Explain.
53. Can AI lead to unintended consequences (TFGBV, cyberbullying, cybercrime)? Explain.
54. Does your business use the following tools?
 - Smartphone
 - Feature phone
 - Internet
 - Laptop
 - Desktop
 - Wearable device
 - Servers
 - Website
 - Email system
55. Do you have adequate hardware to support AI? Explain.
56. Is your internet and electricity stable and secure enough for AI?
57. Do you face constraints in accessing AI-supportive hardware/software?
58. Do you struggle to find skills needed to implement AI? Explain.

MSMEs: ARTIFICIAL INTELLIGENCE (AI)

MSMEs: CERTIFICATIONS & REGULATORY FRAMEWORK

79. Do you know what a business licence or permit is?
80. Have you ever obtained one?
81. Where did you obtain your licence or permit?
82. If not, why?
83. Are you confident in renewing licences/permits?
84. Are you aware of certifications like health permits or environmental standards?
85. What might prevent you from complying with environmental standards?
86. Do you think meeting environmental standards would help your business?
87. Do you currently have any certification or permit?
88. Are you aware of regulators relevant to your business (KRA, NEMA, County, KEBS)?
89. Do you understand compliance requirements for your sector?
90. Do you currently hold any certifications (KEBS, NEMA)?
91. If no, what prevents you from obtaining these certifications?
92. Are you familiar with ESG or carbon credit certifications?
93. Does your business hold or seek ESG/carbon credit certifications?
94. Have you encountered challenges obtaining ESG/carbon credit certifications?

MEDIA LITERACY

95. How often do you connect to the internet?
96. How would you rate your media skills?
97. Which media channels do you use for your business/community?
98. Do you know how to create media content?
99. Do you know how to use a phone to: (various functions)
100. Are you aware of free tools/apps for media creation?
101. If yes, list the tools/apps.
102. Do you know how to communicate responsibly through the media?
103. Are you aware of online safety risks?
104. Have you experienced online bullying/harassment?
105. If yes, explain.
106. Are you aware of IP rights related to media content?
107. Do you know how to track media metrics?
108. Do you know how to deal with misinformation or attacks?
109. What media-related skills would you like training on?
110. How will media training help your MSME/community?
111. Additional comments or suggestions.
114. How much time can you devote to training per week?

CURRICULUM DELIVERY

112. What is your preferred training format?
113. What is your preferred language for training delivery?

Annex III: TOTs Who Were Involved in the Needs Assessment Report

- 1.Omar Dubow Salat (Northern Innovation and Empowerment Hub - NieHub)
- 2.Omar Mahat Abdullahi (Northern Innovation and Empowerment Hub - NieHub)
- 3.Jack Omondi (WISEHub)
- 4.Diko Mohamed Dido (Isiolo Youth Innovation Centre)
- 5.Khalid Ali Mohamed (Swahilipot Hub Foundation)
- 6.Kelvin Wambua Ituo (PC Kinyanjui Technical Training Institute)
- 7.Philip Omondi Ochola (PC Kinyanjui Technical Training Institute)
- 8.Cynthia Awuor Oginga (WISEHub)
- 9.Irene Cherono Madasia (Tegla Loroupe Skill-Based Training Center)
- 10.Gabriel Mwanzia Mutuku (Swahilipot Hub Foundation)
- 11.Abdiaziz Ahmed Ismail (Mandera Innovation Hub)
- 12.Alpha Omondi (Lake Hub)
- 13.Maria Syombua Muneeni (Africa Media Hub)
- 14.Ayubu Mohamed (Swahilipot Hub Foundation)
- 15.Samson Khadzeeh Menzah (Kilifi Innovation Hub)
- 16.Mary Nasieku (Northern Innovation and Empowerment Hub - NieHub)
- 17.Ibrahim Omar Saburi (Godoma Technical Institute)
- 18.Virginia Nyaboke Ndege (Isiolo Youth Innovation Centre)
- 19.Samwel Kiprotich (Tegla Loroupe Skill-Based Training Center)
- 20.Stenburgen Kalama Ruwa (Kilifi Innovation Hub)
- 21.Jamal Hassan Mohamed (Isiolo Youth Innovation Centre)
- 22.Stacy Dina Adhiambo Owino (Lake Hub)
- 23.Eunice Mweka (Nambale NG-CDF Ajira Youth Empowerment Centre)
- 24.Agripina Khavai (Kijiji Connect ICT Hub)
- 25.George Oduor Kafwa (Nambale NG-CDF Ajira Youth Empowerment Centre)
- 26.Brian Wekesa Mukhongo (Tegla Loroupe Skill-Based Training Center)
- 27.Ismail Hassan Mohamed (Mandera Innovation Hub)
- 28.Rukiya Omar Abdulrahim (Godoma Technical Institute)
- 29.Dorothy Atieno Oyieke (Lake Hub)
- 30.Wambita Sheila Fana (WISEHub)
- 31.Caroline Israel (Kijiji Connect ICT Hub)
- 32.Agnes Wambui Muchuki (Othaya NGCDF AYEC)
- 33.Glory Mbegu Ngatata (Kilifi Innovation Hub)
- 34.Amos Katana Kenga (Godoma Technical Institute)
- 35.Jowahir Maalim Ali (Mandera Innovation Hub)
- 36.Annmaria Kerubo Nyankieya (PC Kinyanjui Technical Training Institute)
- 37.Veronicah Kerich (Africa Media Hub)
- 38.Stephanie Gacii (Othaya NGCDF AYEC)
- 39.Sarah Nabwire (Nambale NG-CDF Ajira Youth Empowerment Centre)
- 40.Dennis Muriithi (Othaya NGCDF AYEC)
- 41.Benedict Mwendwa (Africa Media Hub)
- 42.Mati O. Kode (Kijiji Connect ICT Hub)



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