Cambridge
**Centre
for Alternative
Finance**

UNIVERSITY OF
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Judge Business School

WORLD
ECONOMIC
FORUM

The Future of Global
Fintech: Towards Resilient
and Inclusive Growth

INSIGHT REPORT

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Contents

Foreword

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As the global fintech industry continues to grow and scale, the financial services ecosystem is presented with both new opportunities and challenges. Fintechs are frequently looking to revamp their business models and offer new products and services while expanding into new markets, sometimes amid considerable regulatory and policy uncertainties. Concurrently, regulators and policy-makers around the world are increasing their attention to fintech activities, and are enhancing their ability to regulate and supervise such activities. They grapple with the task of simultaneously encouraging innovation, protecting consumers and mitigating emerging risks. Given the rapidly developing fintech environment, additional empirical research, with reliable data and accessible outputs, would be a valuable tool for fintechs and public sector decision-makers alike.

To support this need, the World Economic Forum and the Cambridge Centre for Alternative Finance (CCAF) at the University of Cambridge Judge Business School jointly launched the Future of Global Fintech research initiative to collect more empirical data to understand the global market trends, generate regional fintech insights and assess how fintech activities are impacting consumers, small- and medium-sized enterprises (SMEs) and financial inclusion.

A key activity of the Future of Global Fintech initiative has been conducting a panel survey to take the pulse of the global fintech industry. Working with a carefully curated research panel of 227 fintechs across five industry verticals and six regions, this survey aims to produce actionable insights to inform fintech market development and evidence-based regulation.

We are delighted to present this joint insight report based on the survey findings, which depicts a global fintech industry that has undergone swift and profound changes in the last few years and is now embarking on a road to more resilient and inclusive growth. The research findings focus on six key areas, including fintech business demographics, market performance, market growth factors, regulatory perceptions, customer engagements and fintech activities with societal as well as economic benefits. They illustrate that regional and global fintechs are capitalizing on strong consumer demand for digital financial services to maintain growth momentum, adjusting their business models and product offerings to adapt to the changing and sometimes very challenging environment, and are increasingly expanding the provision of financial services to underserved consumers and businesses while addressing gender and sustainability issues.

Of course, the picture is not all rosy. Some of the fintechs find it difficult to cope with significant changes in macroeconomic and fundraising conditions, and others are struggling to navigate the complex and fluid regulatory landscape, especially when it comes to licensing, registration and product approval processes. We also do not have sufficient empirical data to understand whether expanding the customer base can translate to increased revenue and, more importantly, long-term profitability. Nonetheless, we hope that this study offers useful data points and applicable insights for various stakeholders in the rapidly evolving global fintech ecosystem.

Finally, we would like to sincerely thank all collaborators involved in this research, particularly the UK Foreign, Commonwealth and Development Office (FCDO) for their support and the many members of our global fintech research panel for their help and perspectives.

To our readers, we invite you to explore these insights on the state of global fintech and hope you will be encouraged to contribute to the ongoing advancement of the industry.

Executive summary

The fintech industry continues to display resilience and solid growth, however many long-term uncertainties remain.

Building on the collaborative work[1] by the Cambridge Centre for Alternative Finance (CCAF) and the World Economic Forum to assess the impact of COVID-19 on the fintech industry, this report aims to take the pulse of the rapidly evolving global fintech ecosystem and provide insights to inform evidence-based decision-making.

Taking a panel research approach, this empirical study surveyed a total of 227 carefully selected fintech companies across five retail-facing industry verticals – digital lending, digital capital raising, digital payments, digital banking and savings, and insurtech – and six regions (Asia-Pacific, Europe, Latin America and the Caribbean, Middle East and North Africa, the US and Canada, and Sub-Saharan Africa).

Key findings:

The global fintech industry is demonstrating strength and resilience. As fintechs emerge from COVID-19, their performance remains strong, with customer growth rates averaging above 50% across industry verticals and global regions. From the survey data, it is evident that consumer demand is the main driver of growth, with over half (51%) of all surveyed fintechs citing it as a major factor supporting their growth. This trend is consistent across all regions.

On the other hand, macroeconomic factors and the funding environment together stand out as the primary challenges for fintech growth. These views come at a time when global inflation and interest rates are high. This sentiment is reflected across regions, where surveyed fintechs cite macroeconomic factors (56%) and the funding environment (40%) as two of the top three hindering factors for growth.

The majority of fintechs reflect favourably about their regulatory environment, with 63% rating it as adequate. A total of 38% of surveyed fintechs also cite the regulatory environment as a major supporting factor for their operations and growth. However, a substantial portion find regulatory compliance challenging and the licensing and registration processes to be problematic.

Despite the significant drop in funding over the past years, the surveyed fintechs have differentiated views about the impact of the fundraising environment on their ability to grow. While the report finds more fintechs cite the current fundraising environment as a hindrance to growth, 34% regard their fundraising environment as supporting growth.

Fintechs are expanding the provision of financial services and products to underserved segments, and these segments also make up a sizeable proportion of their consumer base and total transaction values. While most surveyed fintechs that are targeting underserved customer groups and offering tailored products are in emerging markets and developing economies (EMDEs), fintechs in both advanced economies (AEs) and EMDEs are found to have a sizeable portion of their customer base from these groups.

Looking ahead, artificial intelligence (AI), the digital economy, embedded finance as well as open banking are the issues regarded by fintechs as the most relevant for industry development in the near future. AI was the leader, with 70% of fintechs citing it as the most relevant topic for the development of the fintech industry in the next five years.

Introduction

By surveying fintechs directly and producing empirical data, this research offers a deeper understanding of the fintech market.

Research objective and rationale

Fintech has seen exponential growth over the last few years, but its adoption has not been even across the globe. Given fintech's potential to widen access to finance for consumers and small- and medium-sized enterprises (SMEs), it is important to assess fintechs' industry demographics, market performance, growth drivers, customer segmentation and their perception of regulatory, fundraising and wider macroeconomic environment.

This study aims to provide actionable insights relevant for financial regulators, policy-makers, fintechs, incumbent financial institutions, investors, multilateral institutions and international development agencies by using survey data collected from a carefully curated global fintech research panel.

Methodology

Data source and collection

The main dataset for this report was gathered via the Future of Global Fintech insight survey, created by the Cambridge Centre for Alternative Finance (CCAF) and the Forum. Administered as a standalone online survey, respondents answered up to 29 questions based on their chosen fintech business model. The logic-based survey enabled firms to respond to specific questions based on their primary vertical, model type and country of operation. To reach global fintech markets and enhance accessibility, the survey was translated from English into nine other languages (Arabic, Bahasa Indonesia, Bahasa Malaysia, Brazilian Portuguese, Chinese (Simplified), Spanish (Latin America), Tagalog, Thai and Vietnamese). The data collection period spanned from 6 June to 20 September 2023.

The online survey was administered to the fintech firms[2] that are panel members/participants of the Future of Global Fintech research initiative (a joint initiative of CCAF and the Forum, and a panel-based approach for industry-centric research). This invitation-only initiative consists of a carefully selected group of innovative leading fintech firms representing five key retail-facing fintech business verticals (digital lending, digital capital raising, digital payments, digital banking and savings, and insurtech) across six regions (Asia-Pacific, Europe, Latin America and the Caribbean, Middle East and North Africa, the US and Canada, and Sub-Saharan Africa). A total of 227 panel fintechs responded to this survey.

Data sanitization and verification

Concurrently with data collection, a multi-stage verification process was executed, involving the scrutiny of survey responses for anomalies and inconsistencies. The data underwent cleansing and verification between 4 September 2023 and 27 October 2023. The research team then carried out data cleaning and further verification procedures to ensure a robust representation of fintech verticals and regions in the sample.
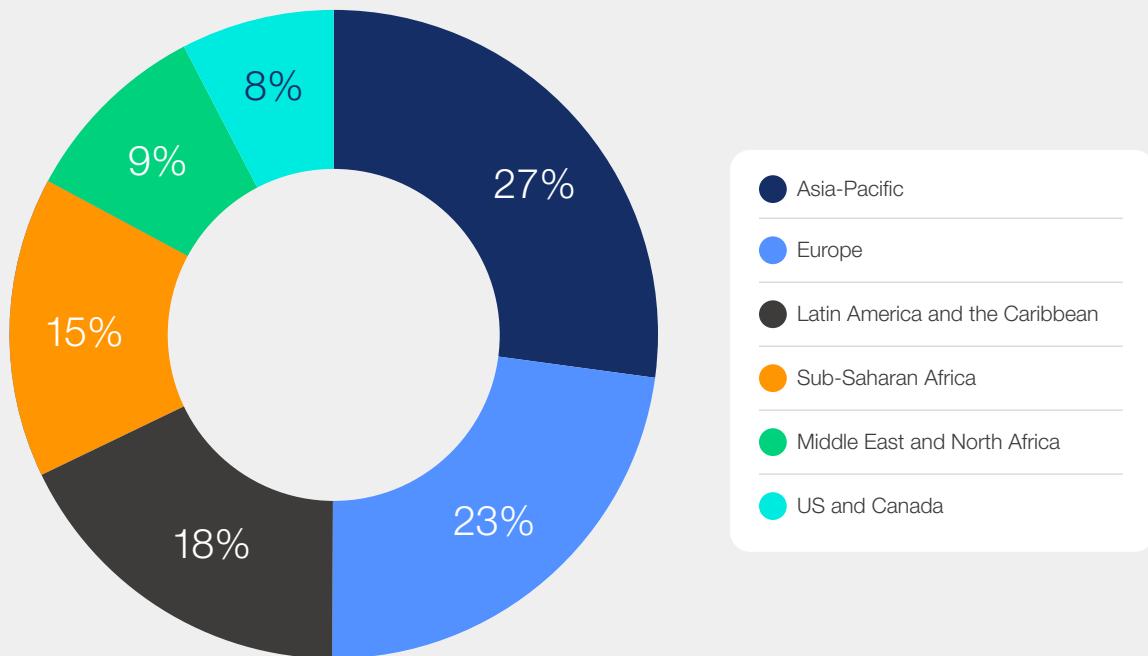
Once all the data was thoroughly cleaned and cross-verified, each firm entry received a unique ID. In compliance with the EU General Data Protection Regulation (GDPR) and the data protection rules of the University of Cambridge, personal and firm-level identifiers were removed, and the raw data was transferred to a separate database. All analyses were conducted on an anonymized dataset, and results were reported at an aggregate level (categorized by vertical or geographical jurisdiction). Only data from the anonymized and sanitized database was subject to analysis. Entries that could not be verified or referenced activities that fell outside the taxonomy being tested were excluded from the study.

Sample demographics

Operational and headquarter regions and countries

The survey received responses from 227 unique fintech firms with a global footprint. A large proportion of the fintechs in the sample operated in multiple jurisdictions (57%), and a good portion of firms operated in multiple regions (24%). Moreover, when considering the national income level and status of development, respondents were evenly distributed, with 51% representing companies operating in advanced economies (AEs) and the remaining 49% operating in emerging markets and developing economies (EMDEs).
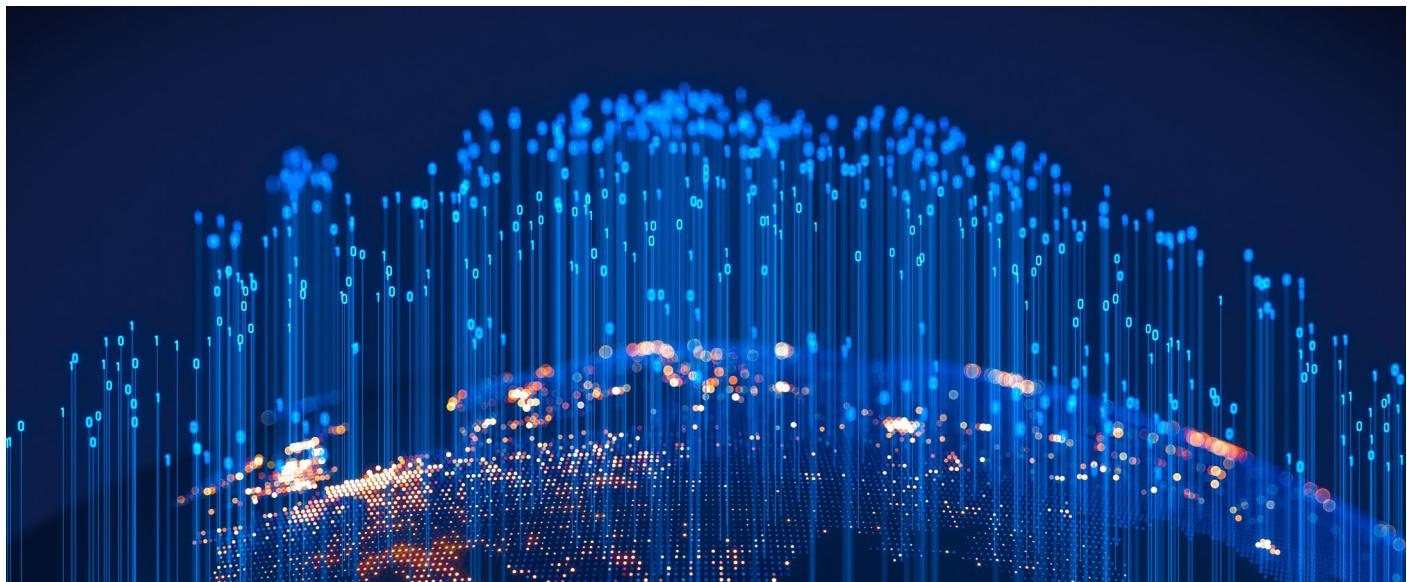
FIGURE 1 | Distribution of fintechs – by region


Legend:
- Asia-Pacific
- Europe
- Latin America and the Caribbean
- Sub-Saharan Africa
- Middle East and North Africa
- US and Canada

The demographics of the panel composition allow the research to draw highly relevant insights across fintech industry verticals and geographies. The survey data sample is a collection of regional samples, with a total of 641 data points, as a fintech firm may have separate and multiple regional subsidiaries and operating entities. The APAC region has the largest proportion of responses (27%) in the data sample, perhaps because of its large population and being home to some of the fastest-growing fintechs in the world. Europe closely follows the Asia-Pacific (APAC) region at 23%. Latin America and the Caribbean (LAC) and Sub-Saharan Africa (SSA) regions contributed 18% and 15% of the survey responses respectively. The sample also includes Middle East and North Africa (MENA), and the US and Canada (9% and 8% respectively).

The study reveals that vibrant hubs such as Singapore, the UK, the US and India have hosted a thriving cluster of fintech corporate headquarters. In addition, among the countries surveyed, the most significant operating countries for fintechs include the US, the UK, Singapore, Mexico and India. Fintechs are increasingly expanding operations across borders, mainly in the same region as their headquarters. However, there are some patterns of US and UK fintechs operating in SSA, where digital payments/remittance business models have a strong presence.

Business models
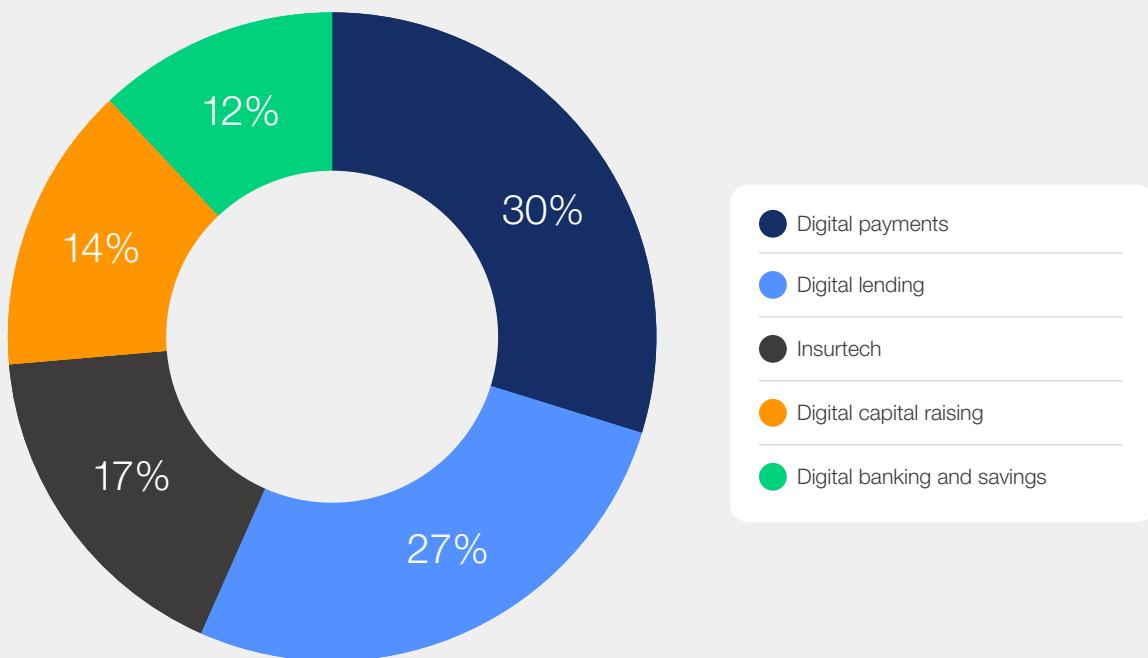
This report focuses on five retail-facing fintech business verticals. The digital payments vertical is the largest, comprising 30% of the total responses. This business model led the growth of fintech for many years (accounting for roughly 25% of cumulative equity funding since 2000) and was further boosted during COVID-19 and is expected to remain the largest fintech segment in 2030.[3] The second largest business model in the data sample was digital lending (27%), followed by insurtech (17%), while digital capital raising and digital banking and savings made up 14% and 12% of the survey responses, respectively.

As the survey focused on leading fintech companies globally, naturally the companies were more likely to be medium to large in size, rather than small or micro. Hence, 43% of the sample reported full-time staff of 250 or more. All the other segments had a share of 18% or lower, with 7% of surveyed fintechs reporting having less than 10 staff.
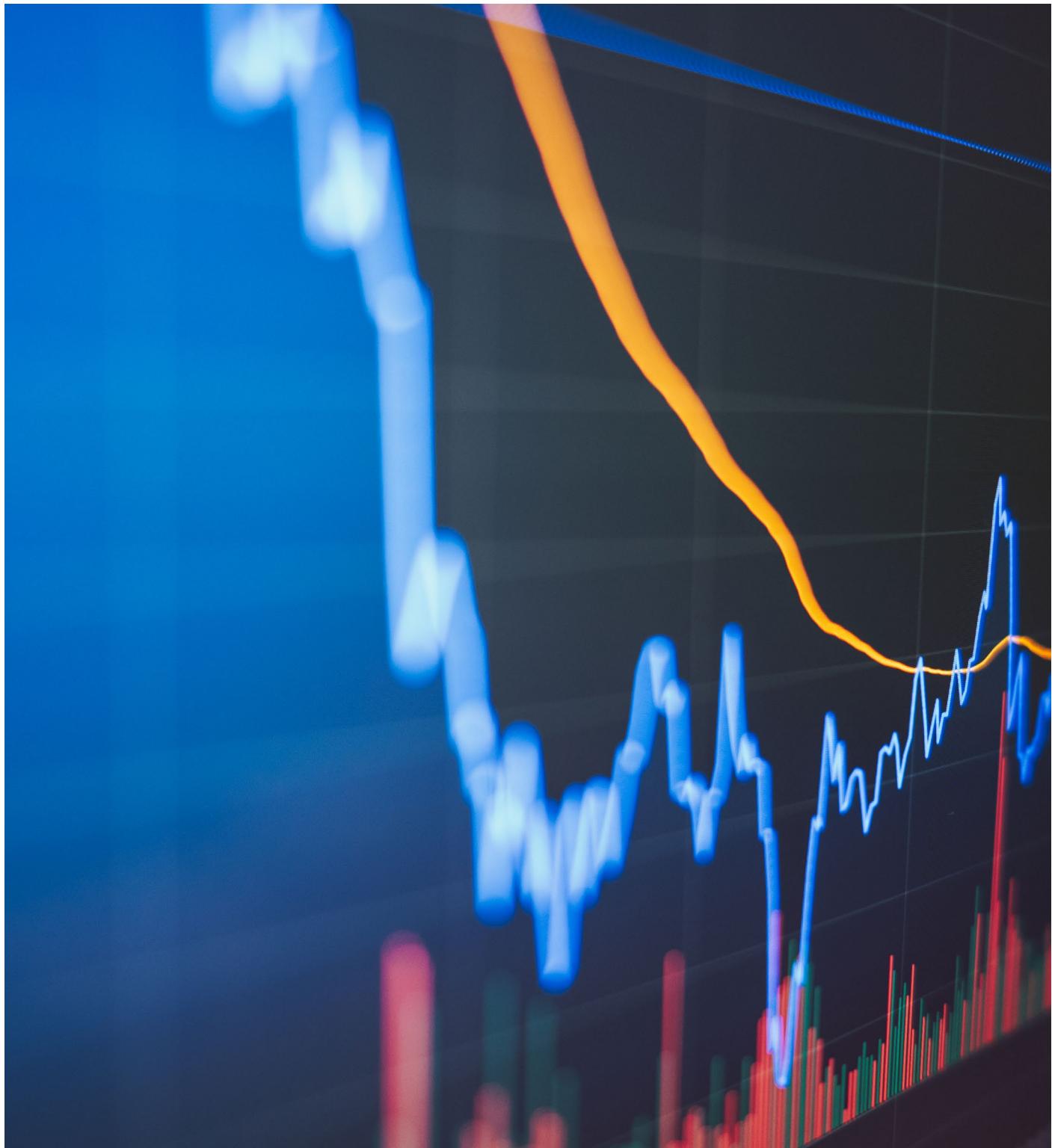
FIGURE 2 | **Distribution of fintechs – by business model**

- Digital payments
- Digital lending
- Insurtech
- Digital capital raising
- Digital banking and savings

1 Fintech market performance

The fintech industry continues to grow in terms of number of customers, highlighting sustained interest in fintech services.
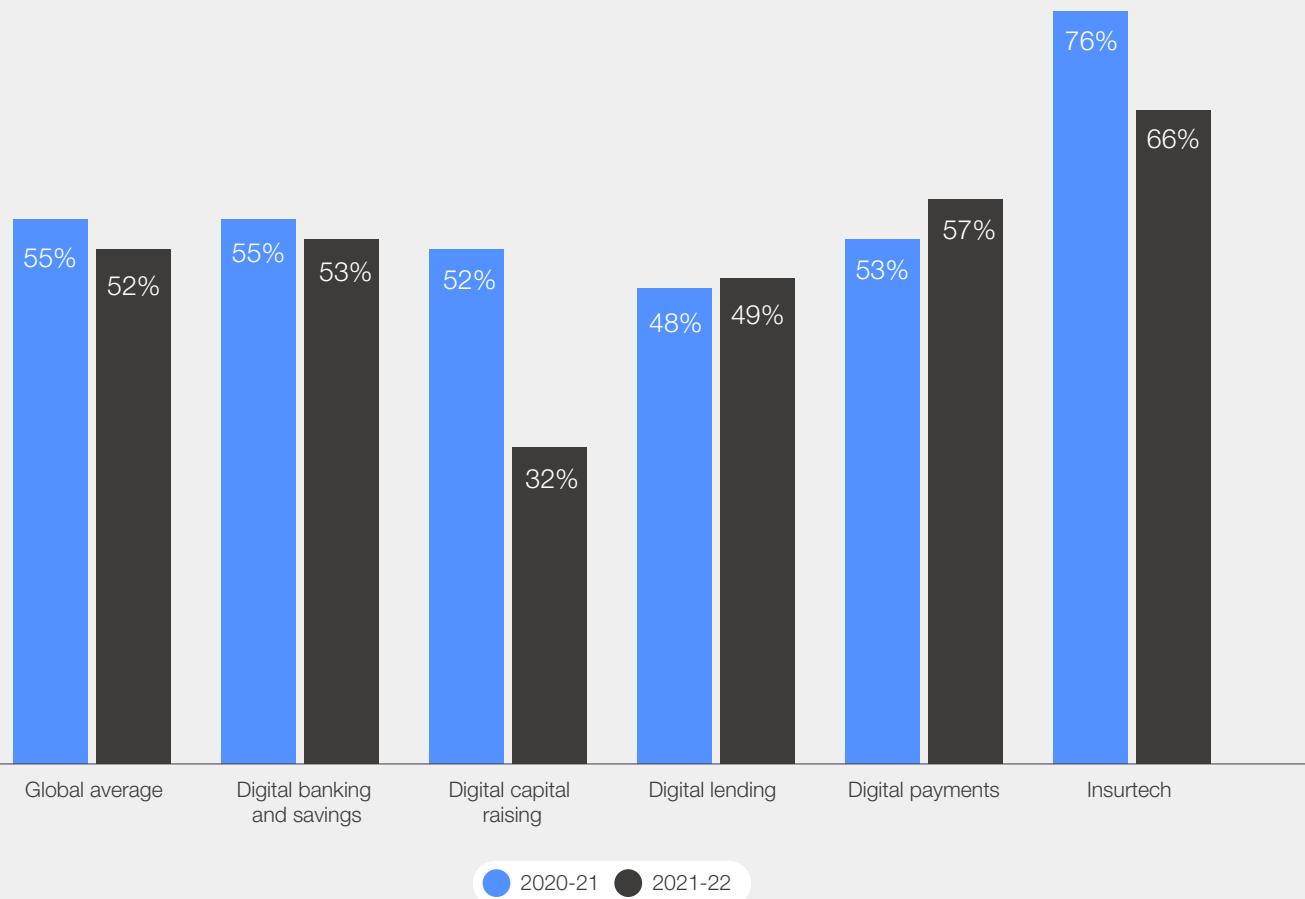
Overall customer growth

The fintech industry has continued to grow in terms of number of customers post-COVID-19, sustaining the growth momentum experienced before and during the pandemic. The customer growth rate is a reliable indicator of two potential main trends for the fintech industry: improved access to digital financial services and increased consumer interest and demand for fintech services. During the pandemic, the global fintech industry demonstrated resilience, with the fastest growth in jurisdictions with more stringent lockdown measures.[4] From 2020 to

2022, the industry exhibited consistently strong customer growth, with an average growth rate of over 50%, highlighting sustained interest in fintech services. However, there was a slight dip in annual growth rates from 55% to 52% between 2020-21 and 2021-22 (see Figure 3), potentially reflecting the strong adoption of fintech services during the COVID-19 period and suggesting a temporary shift in customer behaviour as the pandemic wound down. This dip also highlights challenges in certain fintech market segments, namely digital capital raising, in a post-pandemic economy, where the global venture capital industry has seen some significant ebbs and flows.

FIGURE 3 | **Rate of customer growth 2020-2021 and 2021-2022 – by business model**

2020-21   2021-22

> **Insurtech experienced remarkable customer growth between 2020-2021, with an impressive 76% rate, which declined to 66% in 2021-22.**
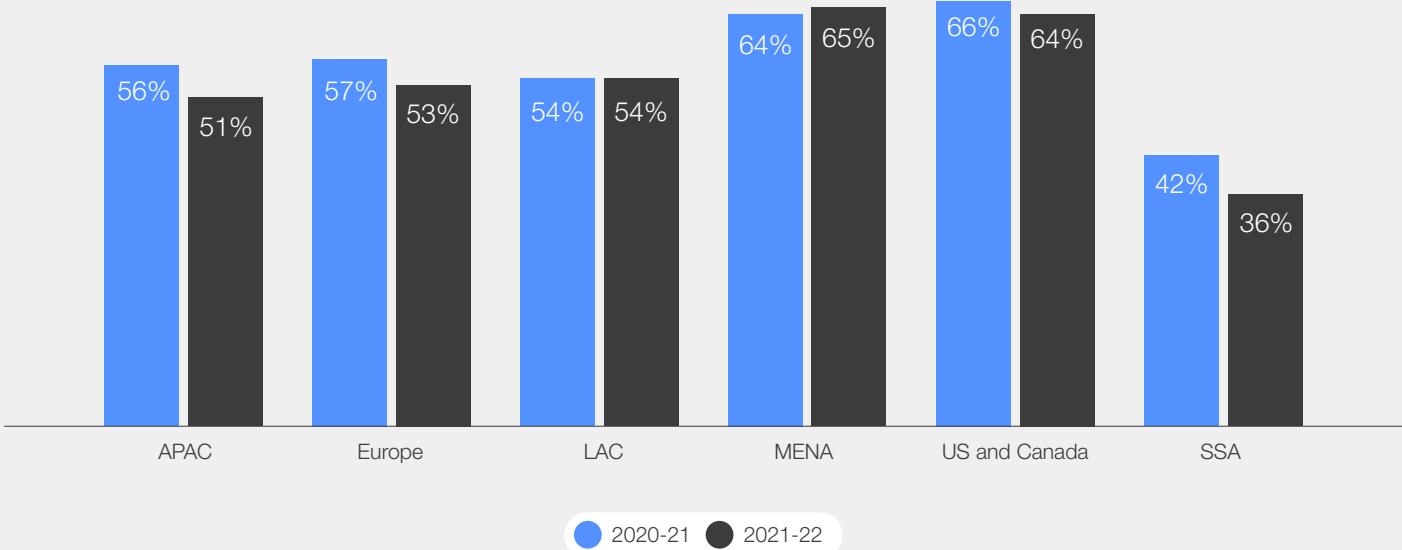
Figure 3 demonstrates that robust year-on-year (YoY) customer growth rates were experienced across industry verticals, except for digital capital raising, which experienced a significant decrease linked to the challenging capital-raising environment and likely exacerbated by rising interest rates and inflation in the second half of 2022. This is likely also a reflection of the larger decrease in global fintech funding, which dipped 40% YoY in 2022, more than overall global venture funding did (35%).[5]

Insurtech experienced remarkable customer growth between 2020-2021, with an impressive

76% rate, which declined to 66% in 2021-22. This decline was driven by fintechs in EMDEs, while insurtechs in AEs followed the overall trend with only a slight drop in growth rate. This is likely explained by the disproportionate effect of COVID-19 on insurtech and insurance in general in EMDEs, such as experiencing higher value claims, higher numbers of claims and a greater number of insurance policy lapses.[6]

The customer growth rate for digital payments grew slightly in 2021-22 from 53% to 57%, which may be an indication of the continued growth catalysed during the COVID-19 pandemic.[7]

FIGURE 4 | Rate of customer growth 2020-21 and 2021-22 – by region

APAC — 56% / 51%
Europe — 57% / 53%
LAC — 54% / 54%
MENA — 64% / 65%
US and Canada — 66% / 64%
SSA — 42% / 36%

● 2020-21   ● 2021-22
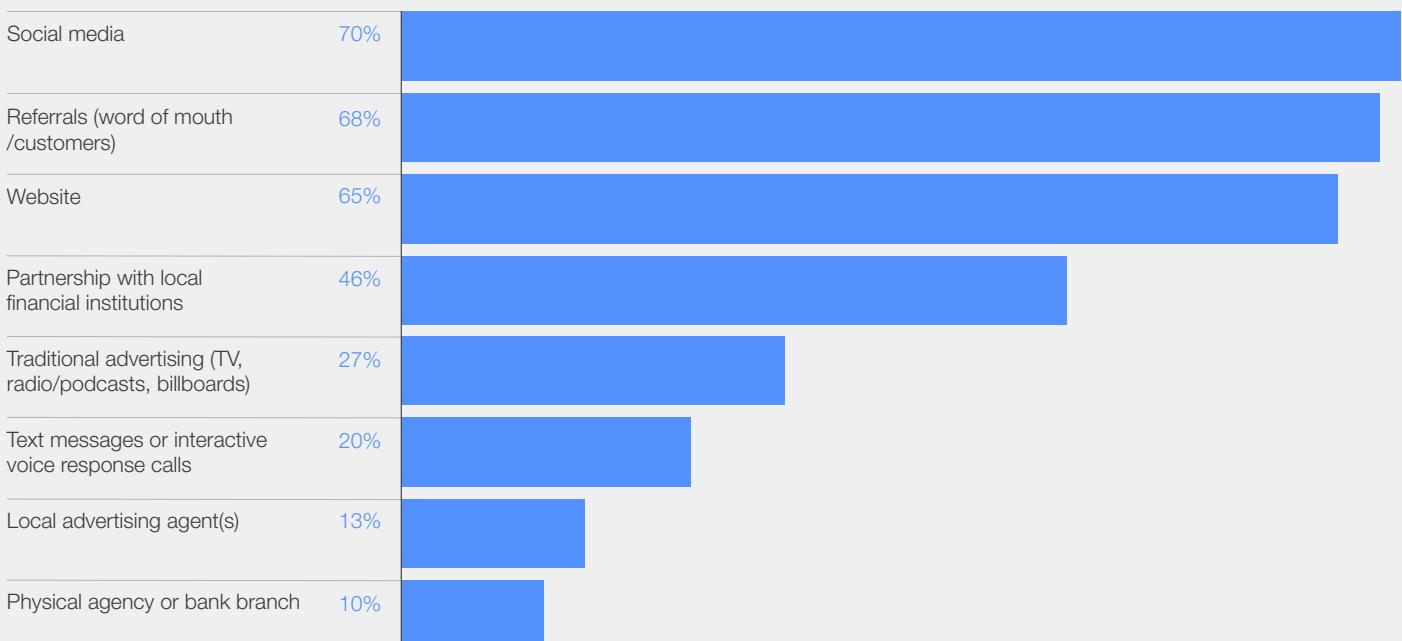
There was robust customer growth across all regions with rates exceeding 50%, except SSA, which had the lowest growth rates at 42% and then 36% (see Figure 4). Possible reasons for this disparity include challenges related to infrastructure (both agent networks and digital infrastructure) that may have intensified during the COVID-19 period. The US and Canada and MENA regions emerged as frontrunners, showcasing the most substantial growth rates within the industry. This is likely driven by the increasing digitization of businesses and structured regulations regarding digital payment methods, banking and credits.[8]

Mechanisms for acquiring customers

Even if natively digital, fintech firms have relied on a diverse array of channels and tools to grow their customer base. As illustrated in Figure 5, fintechs mostly rely on digital channels such as social media and websites to acquire customers. This signals a significant shift away from physical presence and traditional advertising, yet online and offline referrals are still a preferred mechanism for many fintechs.

FIGURE 5 | Mechanisms for acquiring customers

Mechanism	%
Social media	70%
Referrals (word of mouth /customers)	68%
Website	65%
Partnership with local financial institutions	46%
Traditional advertising (TV, radio/podcasts, billboards)	27%
Text messages or interactive voice response calls	20%
Local advertising agent(s)	13%
Physical agency or bank branch	10%

Even though the top mechanisms are consistent across regions, vertical and economic development, unique preferences exist. Fintechs in SSA and MENA tend to favour local advertising agents, while SSA also noted the extensive use of text messages or interactive voice calls (along with APAC) and traditional advertising as ways of acquiring new customers. This is likely due to lower digital penetration and connectivity challenges in the SSA region.[9]

A substantial number of fintechs preferred partnerships with local financial institutions to acquire customers, especially in SSA, MENA and APAC. This is similar to previous benchmarking studies,[10] where many fintechs had referral agreements with local financial institutions or partners to refer their customers to them.
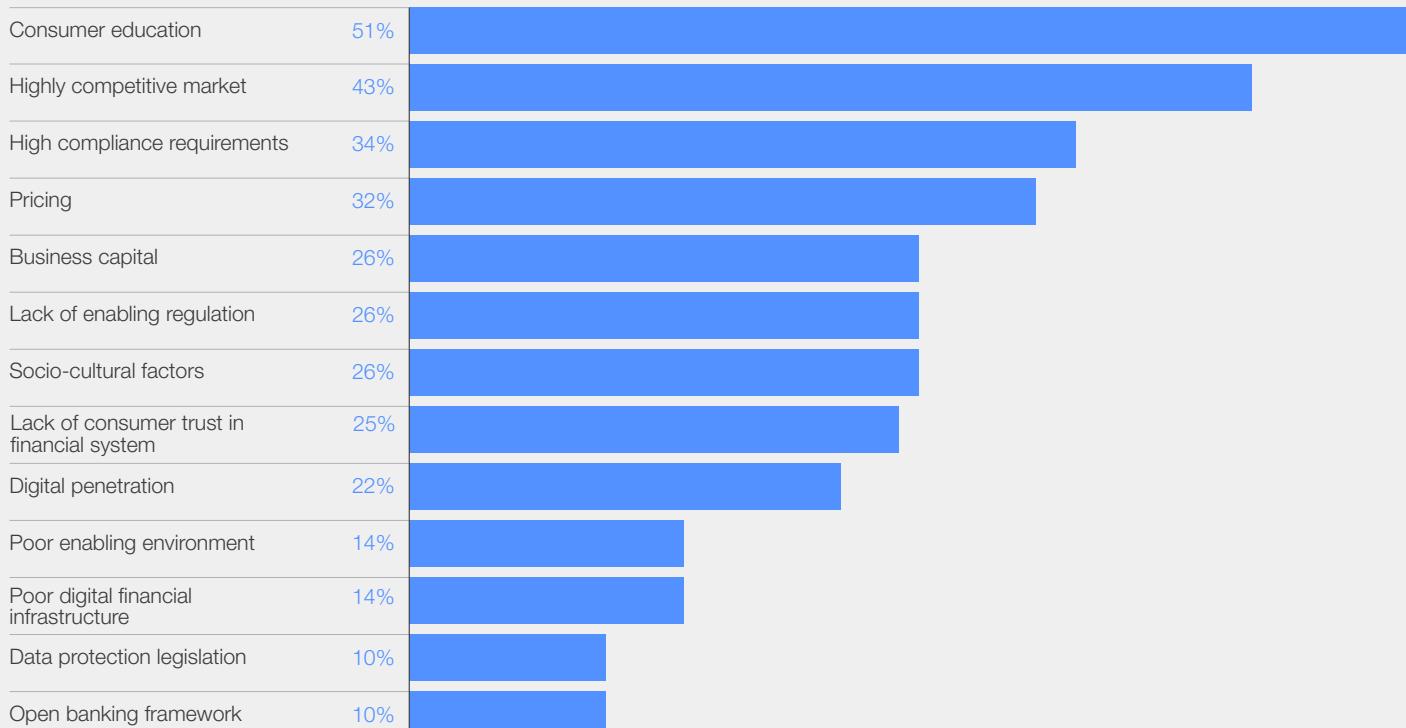
One explanation of this insight is that local financial institutions already have approved regulatory status and an existing customer base, making them attractive partners for fintechs to acquire new customers.

Main challenges in scaling services to new customers

As much as fintech is demonstrating strong customer growth, the growth slowed down in 2021-2022. The growth ahead remains in new and untapped customer segments. It is useful to focus on what fintechs find most challenging in scaling services to new customer segments.

FIGURE 6 | **Most challenging factors in scaling services to additional or new customer segments**

Consumer education	51%	
Highly competitive market	43%	
High compliance requirements	34%	
Pricing	32%	
Business capital	26%	
Lack of enabling regulation	26%	
Socio-cultural factors	26%	
Lack of consumer trust in financial system	25%	
Digital penetration	22%	
Poor enabling environment	14%	
Poor digital financial infrastructure	14%	
Data protection legislation	10%	
Open banking framework	10%	

Consumer education (digital and financial education) was considered to be the most prominent hurdle in scaling services to additional or new customer segments (see Figure 6). This was consistent across regions, verticals and levels of economic development. This universal recognition by the industry shows that fintechs take consumer education seriously and see it as critical to expanding the uptake and use of fintech products.

A highly competitive market emerged as the second-most ranked hurdle. Digital lending fintechs, in particular, rated this as their biggest hurdle when expanding to new customer segments. This reflects the large number of fintechs that have entered the market over the past decade, stimulated by high rates of venture funding and the trend of market consolidation in digital lending in many markets.

Figure 6 shows that compliance is a key challenge for fintech companies. Fintechs found compliance to be the third-most challenging factor, highlighting the resources spent on navigating complex regulatory environments and ensuring compliance. Notably, fintech firms specializing in digital payments expressed even greater concerns about compliance.

Region	Factor	%
APAC	Consumer education	59%
	Highly competitive market	45%
	High compliance requirements	36%
Europe	Highly competitive market	52%
	High compliance requirements	35%
	Consumer education	31%
	Socio-cultural factors	31%
LAC	Consumer education	58%
	Socio-cultural factors	39%
	Highly competitive market	37%
	Pricing	37%
MENA	High compliance requirements	52%
	Pricing	49%
	Consumer education	44%
US and Canada	Highly competitive market	45%
	Pricing	33%
	Consumer education	33%
	High compliance requirements	33%
SSA	Consumer education	71%
	Lack of consumer trust in financial system	48%
	Digital penetration	46%

The findings presented in Figure 7 reveal regional variations in the challenges faced by fintechs when it comes to expanding their services to new customers. In APAC, fintechs strictly adhere to the global trend. They identify consumer education as their most prevalent challenge (59%), followed by a highly competitive market and high compliance requirements.
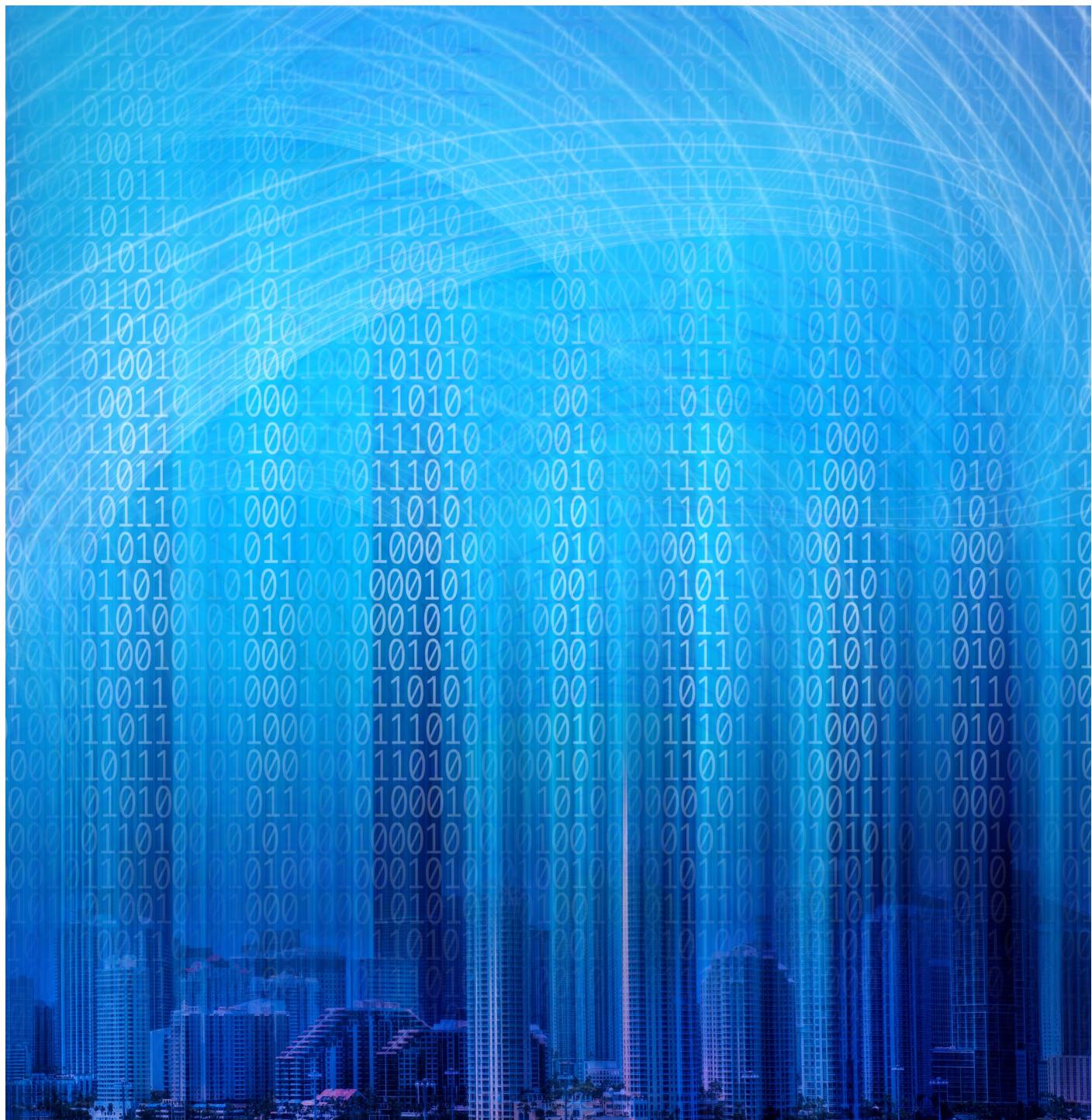
In LAC, while acknowledging consumer education as the biggest challenge (58%), fintechs here uniquely point to socio-cultural factors as the second most significant challenge (39%). Similarly, in SSA, fintechs align with the global trend in noting consumer education as the biggest challenge, with the region notably ranking it the highest at 71%. However, they

diverge in their second and third most significant challenge, citing a lack of trust among consumers in the financial system (48%), closely followed by concerns about digital penetration (46%). These challenges are closely tied to the unique characteristics of each region's market.

Conversely, European-, US and Canada-, and MENA-based fintechs deviate from the global trend. European and US and Canada fintechs share a common trend, with a highly competitive market being cited most frequently by fintechs in those regions, at 52% and 45%, respectively. Whereas in MENA, fintechs cited high compliance requirements as their foremost challenge (52%), followed by pricing (49%).

2 The major factors impacting fintech growth

Consumer demand is driving fintech growth, while macroeconomic factors are a concerning headwind.

> **Macroeconomic factors are found to be the most significant hindrance to fintechs' growth and are infrequently cited as a supporting factor.**

While there is a general understanding of what stimulates or impedes fintech growth, there is a lack of empirical research from the point of view of fintechs themselves to highlight what they find to be the major factors impacting their growth. This chapter's findings reflect survey responses of fintechs when asked to rank the top three factors that (a) support, and (b) hinder their ability to grow.

As shown in Table 1, over half of the surveyed fintechs (51%) noted consumer demand as a major factor supporting their growth. This was followed by the availability of a skilled workforce (39%) and a favourable regulatory environment (38%). In terms of impeding growth, fintechs most frequently found macroeconomic factors, an unfavourable regulatory environment and poor funding environment as the

major hindering factors, noted by 56%, 47% and 40% of respondents, respectively. As anticipated, macroeconomic factors are found to be the most significant hindrance to fintechs' growth and are infrequently cited as a supporting factor. This comes at a time when global inflation and interest rates are extremely high across the globe. It is notable that the funding environment can have a close tie to macroeconomic factors, as high interest rates reduce the availability of capital market funding and also put a dampener on venture capital funding, which has been a great engine for fintech growth. While the factors that fintechs find to be the most important in supporting and hindering their ability to grow differ, the regulatory environment ranks among the top three major factors for both, reinforcing how critical regulation is for fintech growth.

TABLE 1 | **Factors supporting or hindering fintechs' ability to grow**

Supporting factors	Proportion of sample	Hindering factors	Proportion of sample
Consumer demand	51%	Macroeconomic factors	56%
Availability of a skilled workforce	39%	Unfavourable regulatory environment	47%
Favourable regulatory environment	38%	Poor funding environment	40%
Funding environment	34%	Lack of digital and financial literacy of users	34%
Digital and financial literacy of users	32%	Fragmentation of regulation and supervision	30%
Interoperability between financial service providers	29%	State of digital finance infrastructure	24%
State of digital finance infrastructure	29%	Lack of a skilled workforce	20%
Macroeconomic factors	24%	Lack of consumer demand	14%

How major factors support or hinder fintech growth

FIGURE 8 | Major factors supporting fintech growth – top factors by region

Region	Factor	%
APAC	Favourable regulatory environment	52%
APAC	Consumer demand	49%
APAC	Digital and financial literacy of users	37%
Europe	Favourable regulatory environment	50%
Europe	Consumer demand	48%
Europe	Availability of a skilled workforce	41%
LAC	Consumer demand	67%
LAC	State of digital finance infrastructure	40%
LAC	Availability of a skilled workforce	38%
MENA	Availability of a skilled workforce	48%
MENA	Consumer demand	46%
MENA	Digital and financial literacy of users	41%
US and Canada	Consumer demand	51%
US and Canada	Availability of a skilled workforce	43%
US and Canada	Favourable regulatory environment	43%
SSA	Interoperability between financial service providers	58%
SSA	Funding environment	52%
SSA	Consumer demand	39%

FIGURE 9 | Major factors hindering fintech growth – top factors by region

Region	Factor	%
APAC	Macroeconomic factors	61%
APAC	Poor funding environment	43%
APAC	Unfavourable regulatory environment	41%
Europe	Macroeconomic factors	62%
Europe	Unfavourable regulatory environment	52%
Europe	Lack of digital and financial literacy of users	32%
Europe	Poor funding environment	32%
LAC	Unfavourable regulatory environment	54%
LAC	Poor funding environment	46%
LAC	Macroeconomic factors	41%
MENA	Macroeconomic factors	59%
MENA	Poor funding environment	36%
MENA	Lack of a skilled workforce	34%
US and Canada	Unfavourable regulatory environment	71%
US and Canada	Macroeconomic factors	55%
US and Canada	Poor funding environment	43%
SSA	Macroeconomic factors	59%
SSA	Lack of digital and financial literacy of users	46%
SSA	Poor funding environment	44%

Consumer demand: Globally, fintechs see consumer demand as being very important for their growth, noted by 51% of surveyed fintechs as a major supporting factor. As shown in Figure 8, this holds true across all regions, with more than 39% of surveyed fintechs in each region identifying it as a major supporting factor. The emphasis on consumer demand as a key driver for growth was particularly strong in LAC, with fintechs citing this factor 15% more frequently than those in other regions, mainly driven by fintechs serving the business customer segment.

Macroeconomic factors: As expected, macroeconomic factors stand out as the primary challenge to growth for fintechs, noted by 56% of surveyed fintechs as a major hindering factor. This trend holds consistent across all regions and verticals among the top three hindering factors. It diverges from the lead supporting factor, consumer demand, in how frequently it is cited across regions. The LAC region differs from others in that macroeconomic factors still feature in the top three hindering factors but less prominently. For fintechs in this region, this highlights other factors, such as an unfavourable regulatory environment, posing obstacles to their growth.

Funding environment: Overall, the funding environment for fintech has boomed during the last decade in terms of both the number and value of deals. The Bank of International Settlements reported that, as of 2021, fintechs have raised over $1 trillion in equity globally since 2010.[11] Over the last couple of years, however, there has been a notable decline in fintech investment, from $140.8 billion in 2021 to $77.5 billion in 2022, and a further drop so far in 2023.[12] Fintechs are responding to this trend, with 40% of surveyed fintechs noting a poor funding environment as a major hindering factor (see Table 1). As previously mentioned, this is also linked to macroeconomic trends.

Yet funding varies significantly by region, as evidenced by these findings, which reveal regional nuances in how fintechs view the funding environment. Fintechs in LAC strongly indicate that they find funding to be disappointing. LAC has the lowest percentage of firms that identify the funding environment as supporting and the highest percentage of firms that find it hindering (see Figure 9). This is likely related to the large drop in funding to LAC-based fintechs, which dropped 71% from 2021 to 2022. This was the greatest percentage drop in fintech funding for any region YoY.[13]

The reverse is true in SSA, the only region that has a higher percentage of fintechs ranking the funding environment more as supporting than as hindering (see Figures 8 and 9). This could be related to the fact that for many years, SSA as a region struggled to attract more funding and then experienced massive growth in 2021 and 2022, where fintech funding value was between $0.2-0.4 billion in 2018-20, funding value was $1.5 billion in 2021 and $1.1 billion in 2022.[14] These trends and responses from fintechs indicate how changes in the funding environment are impacting fintech growth regionally.

Skilled workforce: A skilled workforce is seen as a major factor supporting growth, noted by 39% of surveyed fintechs (see Table 1). This indicates that fintechs are likely investing in talent acquisition and training to promote growth. This trend remains consistent across various regions and verticals, where a skilled workforce is acknowledged as a major factor supporting growth by over a third of fintech companies. Digital lending fintechs, in particular, stand out with the highest proportion at 52%, 15% higher than other verticals. By region, surveyed fintechs in MENA demonstrate a particular view on the importance of a skilled labour force. They not only view a skilled workforce as a major driver of growth (48%) but also recognize its absence (34%) as a substantial impediment. This suggests that fintechs in MENA place high value on attracting, nurturing and retaining talent to enhance competitiveness and sustainable growth.

Digital and financial literacy of users: Poor digital and financial literacy is not only seen as a challenge for fintechs in EMDEs, but globally. Although this factor is highlighted by fintechs in EMDEs, almost 30% of surveyed fintechs in AEs also find it to be a major factor hindering growth. This may illustrate two demographic dynamics. Firstly, the growing senior consumer bases in large AE markets in Europe and the US and Canada raise concerns about seniors' comparatively lower digital literacy levels.[15] Secondly, in many developing countries, youth struggle with significant primary education challenges and digital inequalities, leading to low levels of digital and financial literacy when they reach adulthood.

Additional factors: Interoperability and the state of digital financial infrastructure do not have a strong pattern of being cited frequently as major factors for growth, but they are by no means irrelevant. For example, in SSA, 58% of fintechs cite interoperability as a major supporting factor compared to other regions where the proportion is under 40% (see Figure 8). This might reflect the recent experience of many SSA fintechs in mobile-money-first driven markets where interoperability persisted as an issue and was consistently cited as an important way to grow the customer base and expand financial inclusion.[16]

Variations in the insurtech vertical

Insurtech varied from other verticals in certain ways, such as the perceived factors hindering growth and how these companies scale services and reach consumers.

Insurtechs cited a lack of digital and financial literacy as a hindering factor for growth almost 30% more frequently than other verticals (62%, while the average for all other verticals was at 34%). Digital and financial literacy may be more challenging for insurtechs as the use of insurtech products and services requires a certain understanding or knowledge on the part of consumers, such as what triggers payouts or what is specifically eligible for a claim.

Further, 39% of surveyed insurtech firms used text messages or interactive voice response calls in acquiring customers compared to the 20% average using these methods. These tend to be more common methods to use if consumers have a lower level of digital literacy. This may also relate to the higher proportion of senior customers (43% compared to the overall average of 22%) who can be less tech-savvy and may respond better to these outreach channels.

Digital and financial literacy features so strongly as a hindering factor for insurtechs that it may overshadow other hindering factors (61%). Furthermore, the state of digital financial infrastructure was also cited by 35% of insurtech firms as a top major hindering factor compared to 24% globally. On the other hand, insurtechs found high compliance much less of a regulatory challenge (19%) than other verticals (34% average) to scaling services to new customer segments.

Key initiatives supporting the development and growth of the fintech industry

To understand more about what drives fintech industry growth, this report's survey asked fintechs what kinds of common initiatives they regard as being supportive of industry development. Fintechs were asked to specifically select initiatives that they deem to be effective in supporting the growth of the industry and the scaling of their businesses. Table 2 classifies both market-led and regulator-driven initiatives.

Initiatives supporting the development and growth of the fintech industry

Market-led initiatives	
	Sustainable finance schemes
	Membership to fintech associations
	Private sector initiatives (i.e. innovation programmes)
	Networking events with venture capitalists/funders

Regulator-driven initiatives	
	Sustainable finance incentives
	Streamlined or fast-tracked product or service approvals
	Standardization on cybersecurity/fraud prevention
	Open banking/finance frameworks
	Support on remote onboarding/electronic know your customer (eKYC) or simplified customer due diligence
	Hackathon/TechSprint
	Digital regulatory and supervisory infrastructure (i.e. digital regulatory reporting)
	Regulatory sandboxes
	Innovation offices
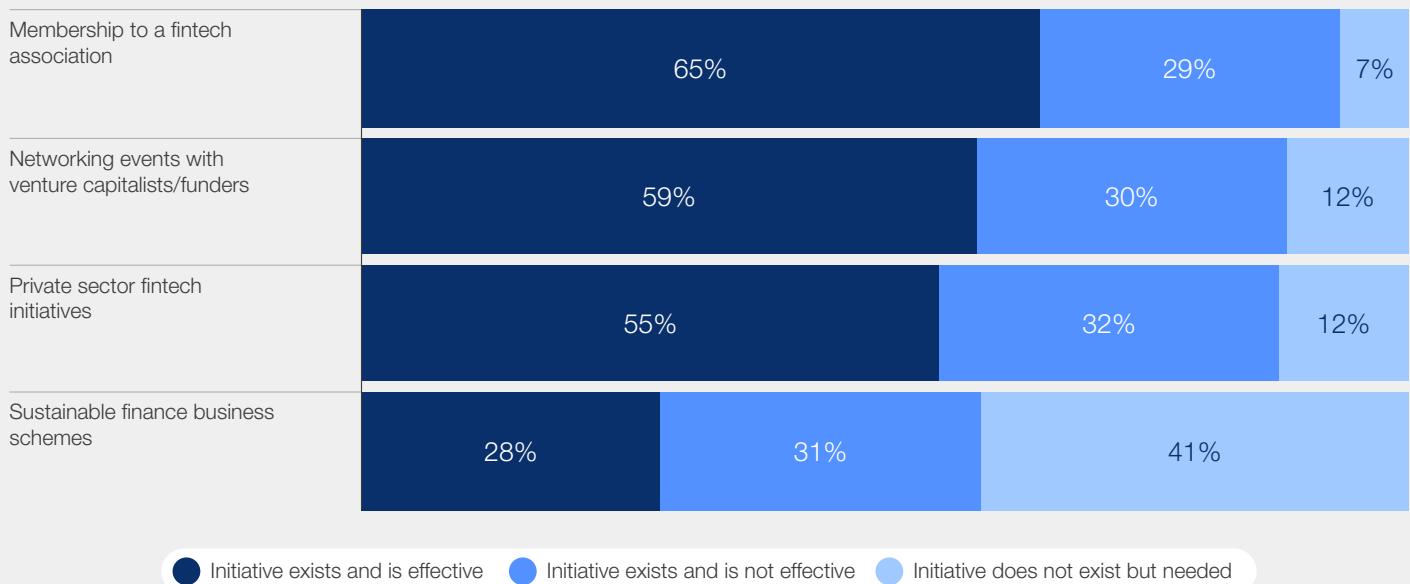
The initiatives found to be more effective in supporting fintech industry development were market-led initiatives, while some of the regulator-led initiatives, such as innovation offices, hackathons/TechSprints and regulatory sandboxes, were considered less effective.

Market-led initiatives

Fintechs find some market-led initiatives to be effective in bolstering their growth and scalability.

FIGURE 10 | **Effectiveness of market-led initiatives supporting the development of fintech industry activities**

	Initiative exists and is effective	Initiative exists and is not effective	Initiative does not exist but needed
Membership to a fintech association	65%	29%	7%
Networking events with venture capitalists/funders	59%	30%	12%
Private sector fintech initiatives	55%	32%	12%
Sustainable finance business schemes	28%	31%	41%

Among market-led initiatives, being a member of a fintech association and participating in networking events with funders were cited as the most effective initiatives by fintechs. Conversely, among the existing initiatives, as shown in Figure 10, sustainable finance business schemes were considered least effective, although a significant proportion (41%) of surveyed fintechs expressed a need for such schemes, indicating that the fintech industry can be incentivized and is keen to develop more activities relating to sustainable finance.

Many fintechs (over 60%) across regions, except MENA, found membership in fintech associations to be effective in supporting growth. This highlights the importance of such associations, which typically provide knowledge-sharing, collaboration and networking opportunities, as well as undertaking policy advocacy and facilitating engagements with regulators.
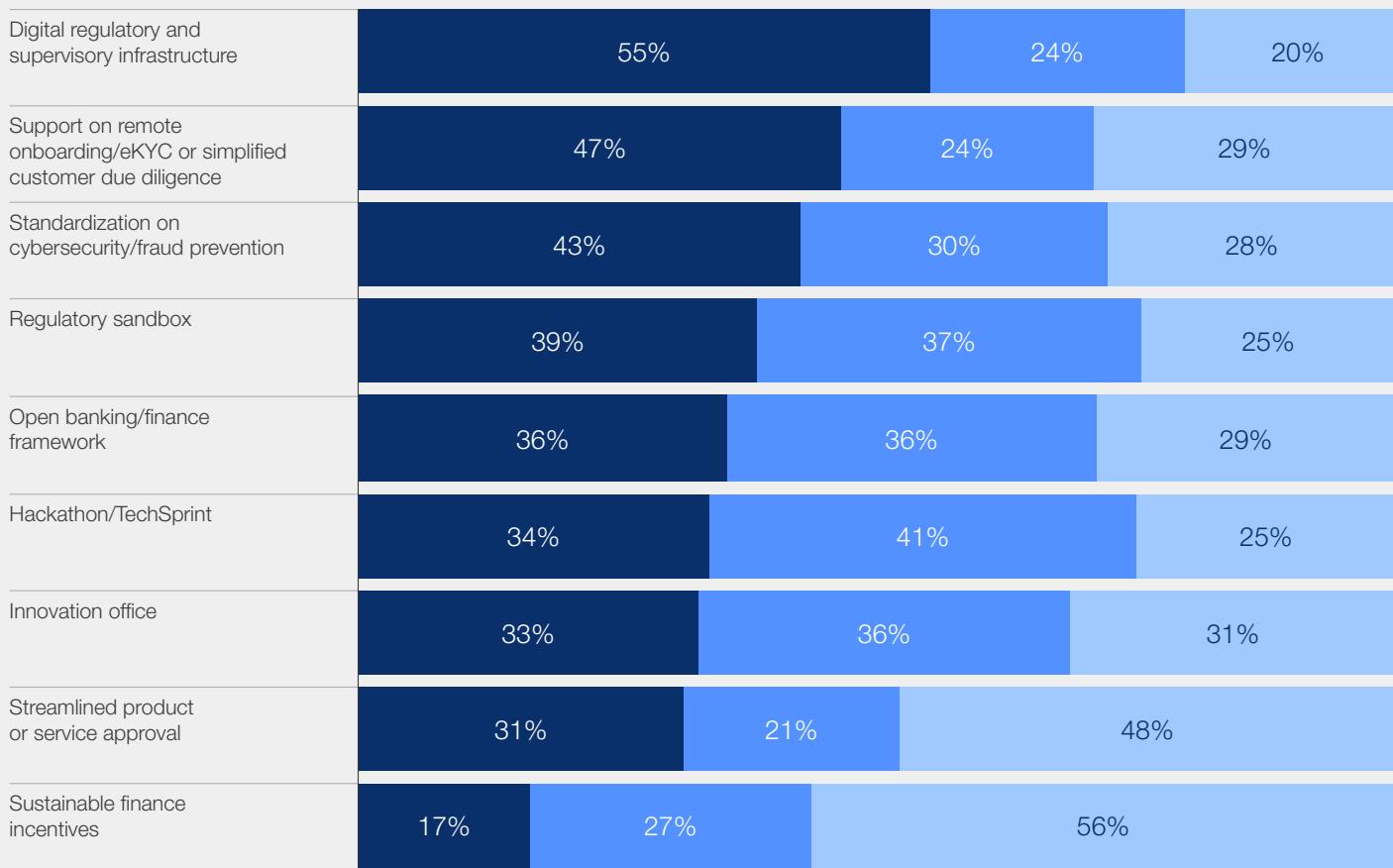
Notably, surveyed fintechs in LAC found that being a member of a fintech association was highly useful (81%), more so than fintechs in other regions. Comparatively speaking, fintechs in SSA found networking events with funders less effective in supporting industry development. Specifically, only 46% of fintechs in SSA found these events effective, whereas more than 55% in other regions reported their effectiveness.

Regulator-driven initiatives
It is more of a mixed picture when it comes to assessing how
fintechs view the effectiveness of regulator-driven initiatives.

FIGURE 11 | **Effectiveness of regulator-driven initiatives in supporting
the development of fintech industry activities**

	Initiative exists and is effective	Initiative exists and is not effective	Initiative does not exist but needed
Digital regulatory and supervisory infrastructure	55%	24%	20%
Support on remote onboarding/eKYC or simplified customer due diligence	47%	24%	29%
Standardization on cybersecurity/fraud prevention	43%	30%	28%
Regulatory sandbox	39%	37%	25%
Open banking/finance framework	36%	36%	29%
Hackathon/TechSprint	34%	41%	25%
Innovation office	33%	36%	31%
Streamlined product or service approval	31%	21%	48%
Sustainable finance incentives	17%	27%	56%

● Initiative exists and is effective   ● Initiative exists and is not effective   ● Initiative does not exist but needed

Among regulator-driven initiatives, the development of digital regulatory and supervisory infrastructure (e.g. having a centralized data science unit within a regulatory authority or the adoption of supervisory technology by a central bank) was regarded as the most conducive to support fintech growth and scalability, with 55% of fintechs rating it as effective (see Figure 11). This was followed by support for remote onboarding/ eKYC and simplified customer due diligence, with 47% rating them as effective. Sustainable finance incentives were not generally available but are deemed to be needed, with 56% of fintechs expressing an appetite for such initiatives.

One of the more significant gaps in regulator-driven initiatives perceived by the surveyed fintechs is in regard to improved product and service approval processes. This has been a regular challenge cited by fintechs[17] and there are examples of regulatory initiatives designed to address this.

Regulatory sandboxes were found to be slightly more prevalent than innovation offices in surveyed jurisdictions, and more fintechs expressed a desire to access innovation offices than regulatory sandboxes (31% vs 25%). For fintechs who have used regulatory sandboxes or innovation offices, it is interesting that almost an equal number of them rated these initiatives as either effective or ineffective (39% vs 37% for regulatory sandbox and 33% vs 36% for innovation offices). Other reports have indicated that innovation hubs are the best in jurisdictions where fintech is growing rapidly.[18]

This study also shows that among the surveyed fintechs, there is an equal split in opinion regarding the effectiveness of existing open banking frameworks for industry growth: 36% find them effective, while an equal 36% consider them ineffective. It will be interesting to track the development of open banking and open finance frameworks closely in the coming years to understand how fintechs perceive them.

Regulatory initiatives were found to be more effective in general in APAC and the US and Canada. Surveyed fintechs in Europe, the US and Canada, and MENA regard regulator-driven measures relating to cybersecurity and fraud prevention to be more effective in supporting industry growth than other regions. In SSA, surveyed fintechs identified the need for more regulator-led initiatives to support a more streamlined product or services approval (48%), the establishment of a regulatory sandbox (41%) and support on remote onboarding/eKYC (37%).

In MENA, fintechs clearly see the biggest gap in regulator-led initiatives is streamlined product or services approval.

The research findings suggest that surveyed fintechs regard market-led initiatives such as fintech associations as playing a significant role in supporting industry growth, and there is evidently more need for regulator-driven initiatives in order to more effectively facilitate market development across regions.

3 Fintech perceptions of the regulatory environment

Overall, fintechs have a positive perception of the regulatory environment, but a significant percentage find certain aspects challenging.
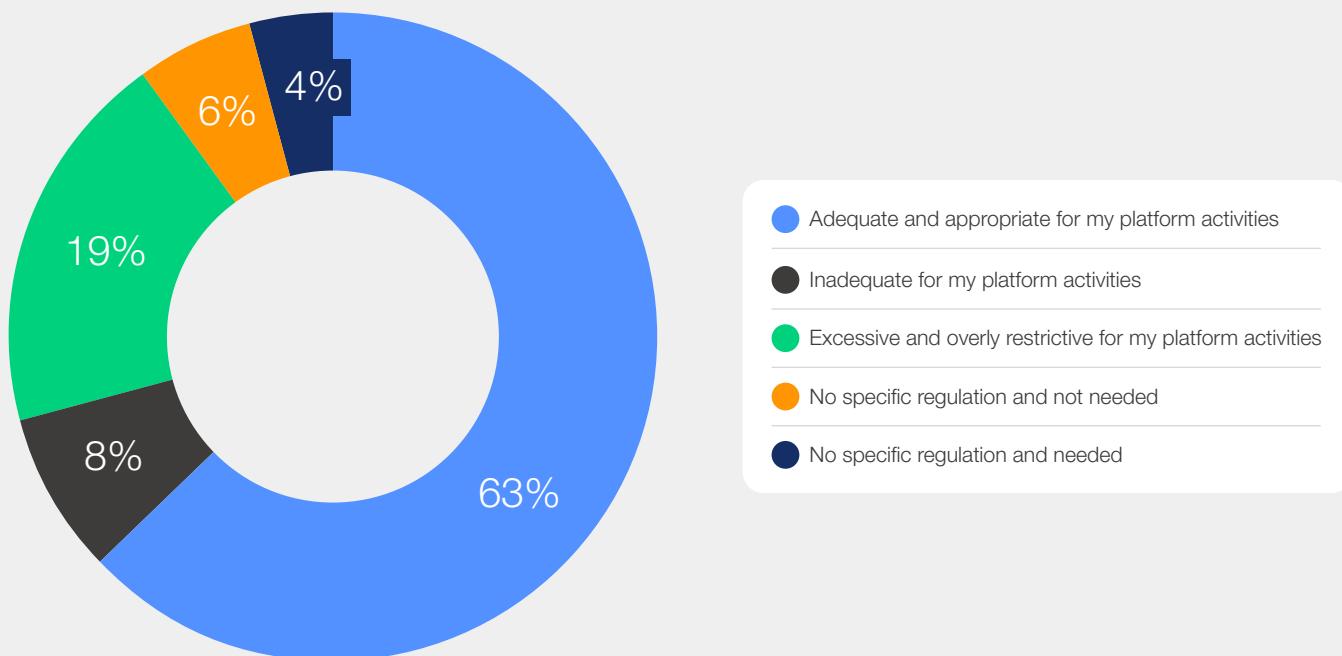
As technology continues to revolutionize the way financial services are provisioned, regulators strive to strike a balance between creating a more enabling regulatory environment for financial innovation to thrive, robustly protecting consumers, and ensuring market integrity and financial stability. Striking this balance is not easy, especially as many regulators are resource-constrained and tackling a multitude of challenges concurrently at any point in time. Therefore, it is important to understand fintechs' perspective on the regulatory environment, which in turn can provide valuable data points to inform evidence-based regulation and policy-

making. This chapter presents findings on how fintechs experience and rate their jurisdictions' regulatory approaches overall and further looks at specific aspects of the regulatory approaches.

Overall, fintechs perceive the regulatory environment as acceptable or favourable for their activities, notwithstanding some regulatory hurdles and key areas that can benefit from improvement. This research sheds further light on this dynamic and where there are significant differences among regions or verticals.

FIGURE 12 | **Perception of the regulatory environment – overall**

- Adequate and appropriate for my platform activities
- Inadequate for my platform activities
- Excessive and overly restrictive for my platform activities
- No specific regulation and not needed
- No specific regulation and needed

Analysis shows that many fintechs (from 14% to 22% depending on region) express regulatory concerns about excessive or overly restrictive regulations for fintech activities.
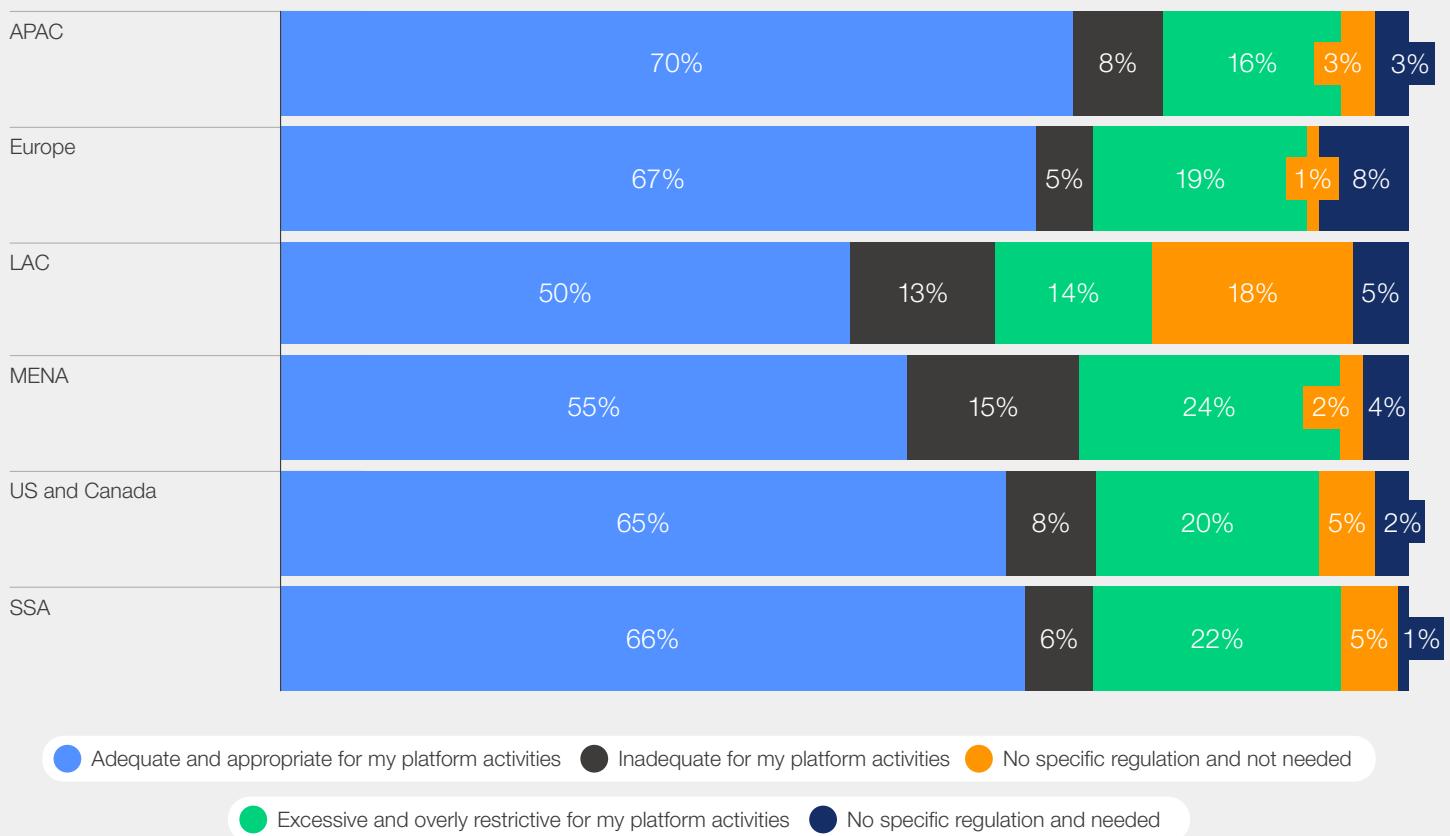
Most fintechs perceive that the regulatory environment is adequate and appropriate for the jurisdictions they operate in as shown in Figure 12. This was consistent across regions and most verticals; however, some differences were revealed in the data.

The overall trend across regions is that regulation is generally adequate and appropriate for fintech activities (Figure 13). Fintechs in APAC and Europe perceived their regulatory environment to be marginally better than fintechs in other regions, supporting the earlier finding that the regulatory environment was a key driver of fintech growth in APAC (see Figure 8). Comparatively speaking, fintechs in the MENA region had the highest regulatory concerns, with 42% of the firms indicating that the existing regulation was either excessive and restrictive, inadequate or non-existent and needed for their fintech activities. Followed

by LAC, with only half of fintechs in the region perceiving regulation as adequate, a further 13% found regulation to be inadequate, and another 14% felt the regulatory environment was excessive and overly restrictive. This finding supports earlier evidence that LAC fintechs see the regulatory environment as a key factor hindering business growth. Additionally, Europe stood out as the region with the highest percentage of fintechs (8%) stating that no specific regulation existed and was needed.

While overall adequate, analysis shows that many fintechs (from 14% to 22% depending on region) express regulatory concerns about excessive or overly restrictive regulations for fintech activities. Where regulators face a multitude of challenges and are constrained by resources or lack of capabilities, there is great potential for peer learning, capacity building and innovation in regulatory and supervisory approaches and practices.
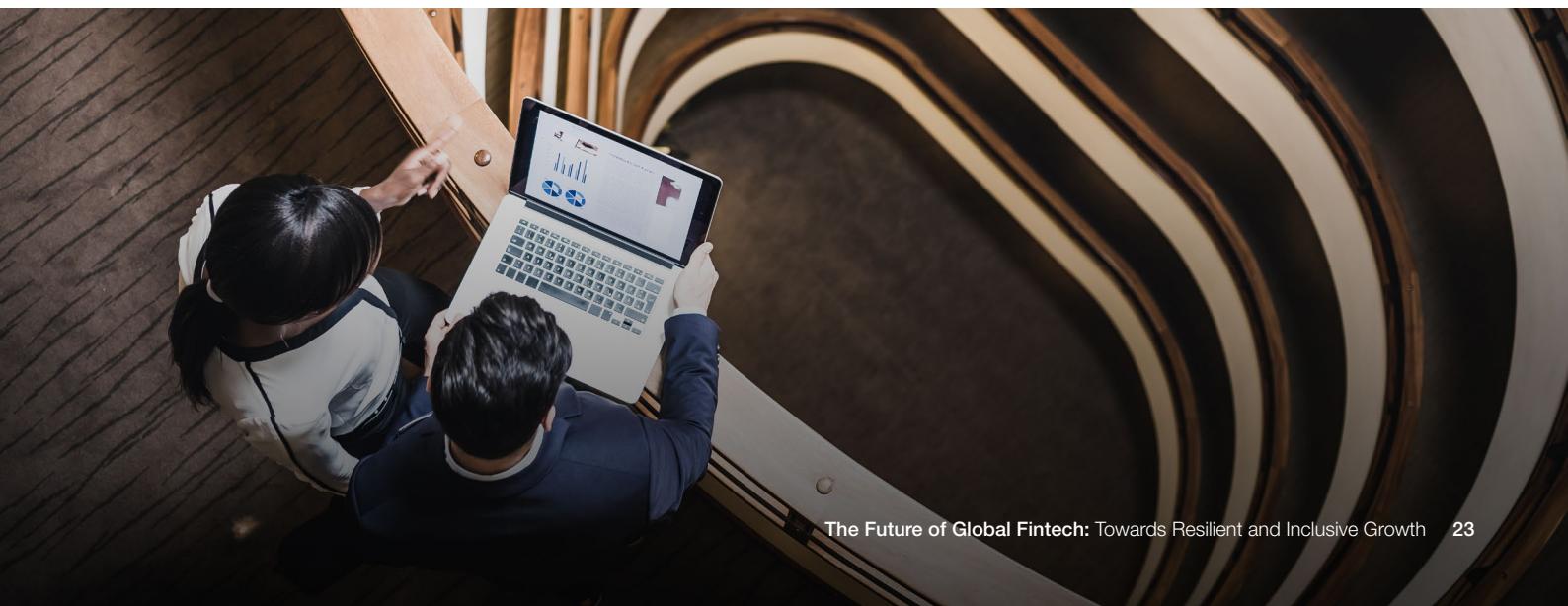
FIGURE 13 | Perception of the regulatory environment – by region

Region	Adequate and appropriate	Inadequate	Excessive and overly restrictive	No specific regulation and not needed	No specific regulation and needed
APAC	70%	8%	16%	3%	3%
Europe	67%	5%	19%	1%	8%
LAC	50%	13%	14%	18%	5%
MENA	55%	15%	24%	2%	4%
US and Canada	65%	8%	20%	5%	2%
SSA	66%	6%	22%	5%	1%

● Adequate and appropriate for my platform activities   ● Inadequate for my platform activities   ● No specific regulation and not needed

● Excessive and overly restrictive for my platform activities   ● No specific regulation and needed

The survey shows that insurtech and digital banking and savings fintechs gave the regulatory environment a more favourable rating, where over 70% of fintechs in these verticals found it adequate, compared to the global vertical average of 63%. This may reflect the fact that their products align more with existing regulations in banking and insurance sectors with less need to develop bespoke or retrofitted regulatory regimes.

Comparatively speaking, digital lending firms seem to have varied experiences and challenges with regulation. While a larger proportion of fintechs in this vertical find regulations to be adequate and appropriate (60%), a significant number of them rated their regulatory environment to be excessive or overly restrictive. They also have the highest percentage of responses that feel regulation is unspecific yet needed (8% versus the other verticals at 4% or less). This underscores the challenge that the digital lending sector could pose to regulators who have concerns about risk and over-indebtedness and could indicate the differences in how these firms are regulated around the world. Notably, digital payments had the lowest proportion of fintechs finding regulation as adequate and appropriate for their activities at 57%, with a further 12% perceiving the regulatory environment to be inadequate and another 17% expressing concerns that regulations are either excessive or overly restrictive.

Key regulatory aspects and highlighted concerns
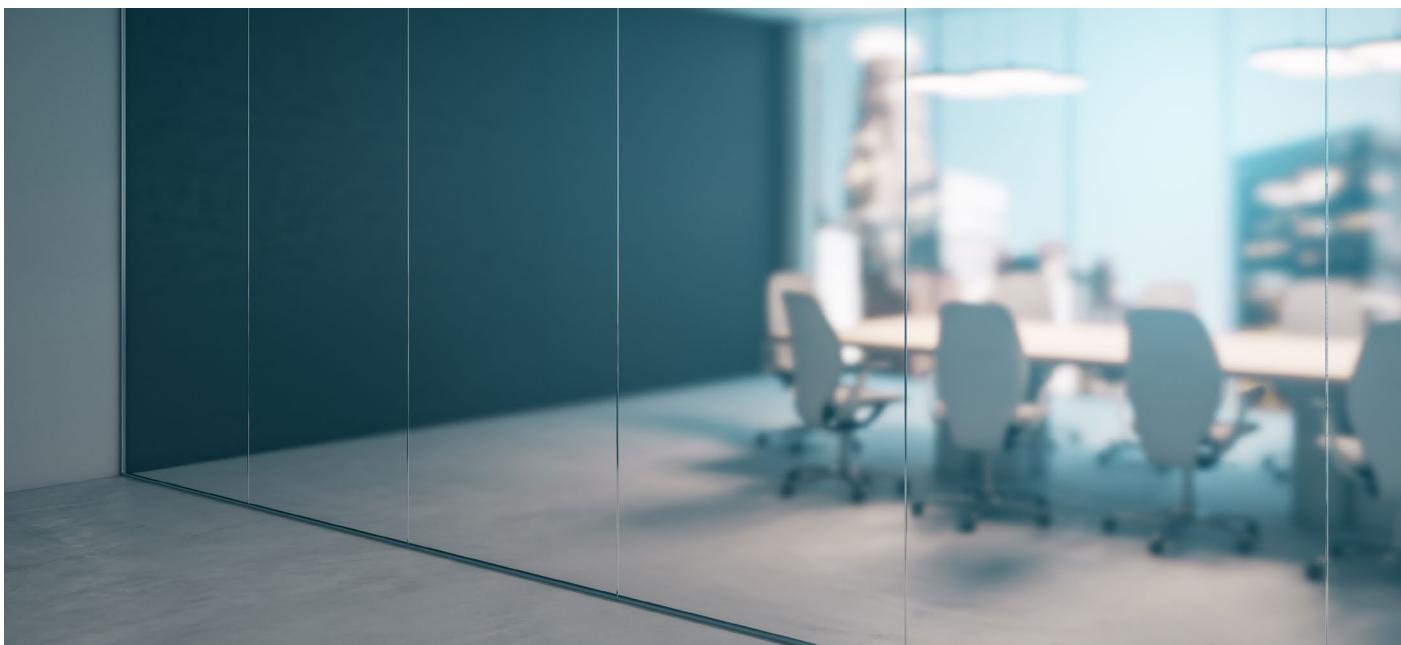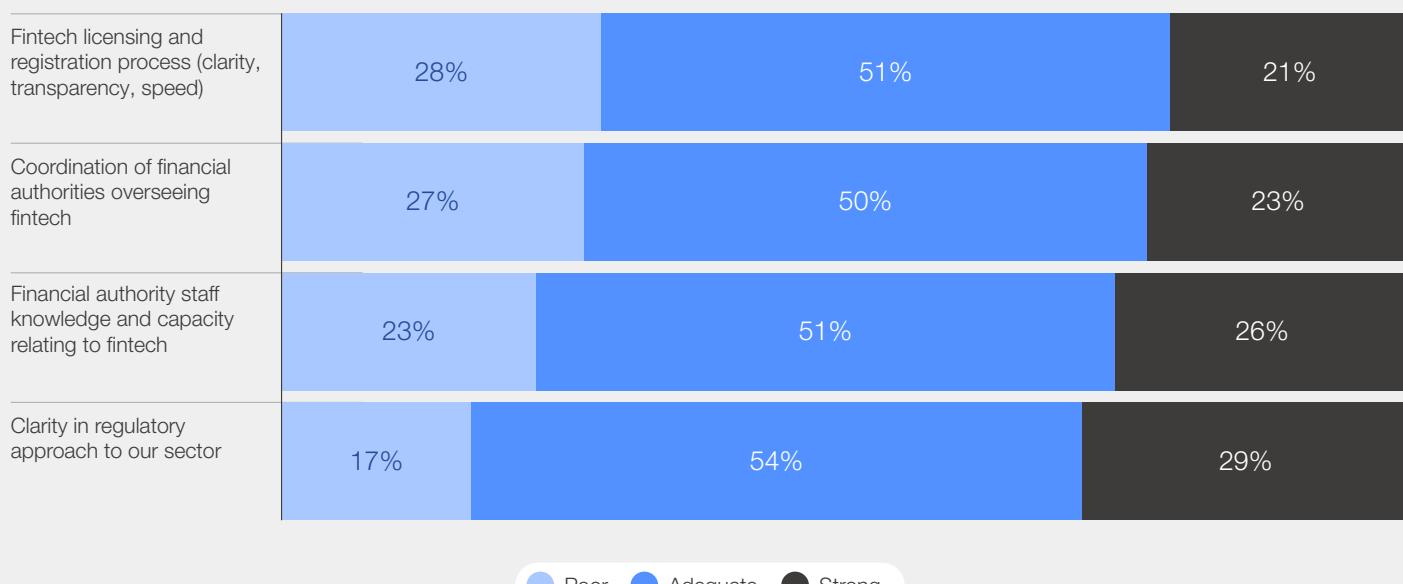
In addition to the survey question on the perception of the general regulatory environment, fintechs were asked to evaluate their regulators across four key aspects: the clarity of regulatory approaches specific to their sector or firm, the level of coordination among the various financial authorities overseeing fintech and digital finance, the competence and capabilities of financial authority staff concerning fintech, and the effectiveness, transparency and speed of the fintech licensing and registration process. The aim was to deepen understanding of fintechs' experience with regulation and gain more insight, especially to uncover where improvement is most needed.

Overall, fintech licensing and registration and coordination among authorities are the aspects that are considered most challenging for fintechs, receiving the largest proportion of poor ratings and the lowest proportion of strong ratings (see Figure 14). Fintechs in both AEs and EMDEs rated coordination among authorities and fintech licensing as relatively poor, with fintechs in EMDEs finding licensing to be a more significant challenge. Further, as expected, fintechs that perceived the regulatory environment as "excessive and overly restrictive" (19%, see Figure 12) rated all four regulatory aspects more poorly than average.

FIGURE 14 | **Rating of key regulatory aspects – overall**

	Poor	Adequate	Strong
Fintech licensing and registration process (clarity, transparency, speed)	28%	51%	21%
Coordination of financial authorities overseeing fintech	27%	50%	23%
Financial authority staff knowledge and capacity relating to fintech	23%	51%	26%
Clarity in regulatory approach to our sector	17%	54%	29%

Poor   Adequate   Strong

Fintech licensing and registration process received the largest proportion of poor ratings (28%), notwithstanding that half of the survey fintechs rate it as adequate. This is supported by the finding that most fintechs found fast-tracking product/service approval initiatives to be ineffective or lacking, as seen in Figure 11. Particularly, the firms in the LAC region struggled the most, with over a third (36%) of fintechs rating the licensing and registration process as poor, in contrast, US and Canada firms generally regarded this aspect as adequate or strong. Further, this region also had the highest percentage of firms that indicated that streamlined product or service approval initiatives were effective, while the LAC region had the lowest percentage (as noted in Chapter 2). Compared with other verticals, digital lending had the highest percentage of firms that rated the licensing and registration process as poor, underscoring the sector's relatively frequent regulatory changes that could contribute to increased uncertainty and unclear expectations.[19]

Coordination among authorities that oversee fintech activities was the second leading aspect ranked poorly by fintechs. This can be related to several factors, including situations where certain fintech verticals like digital payments are regulated by multiple authorities in comparison with other fintechs. Particularly, fintechs in MENA and SSA noted that their regulators struggled more with coordination. This may be related to the strong role telecom operators play in digital finance, especially in SSA, where fintech activities such as digital payments are often under the purview of several regulators in a multi-peak jurisdiction. For MENA, this supports earlier findings by CCAF-World Bank fintech regulator studies that found lack of coordination as one of the key impediments to effective supervision of fintech in MENA as reported by the regulators themselves.[20] Digital capital raising and digital lending verticals had a slightly higher percentage of fintechs (almost a third) that rated coordination among authorities as poor, similar to reactions to the "fintech licensing and registration" aspect. This could underpin the overall regulatory concerns (excessive, overly restricted, no specific regulations) concerning the regulatory environment as cited by these two verticals.
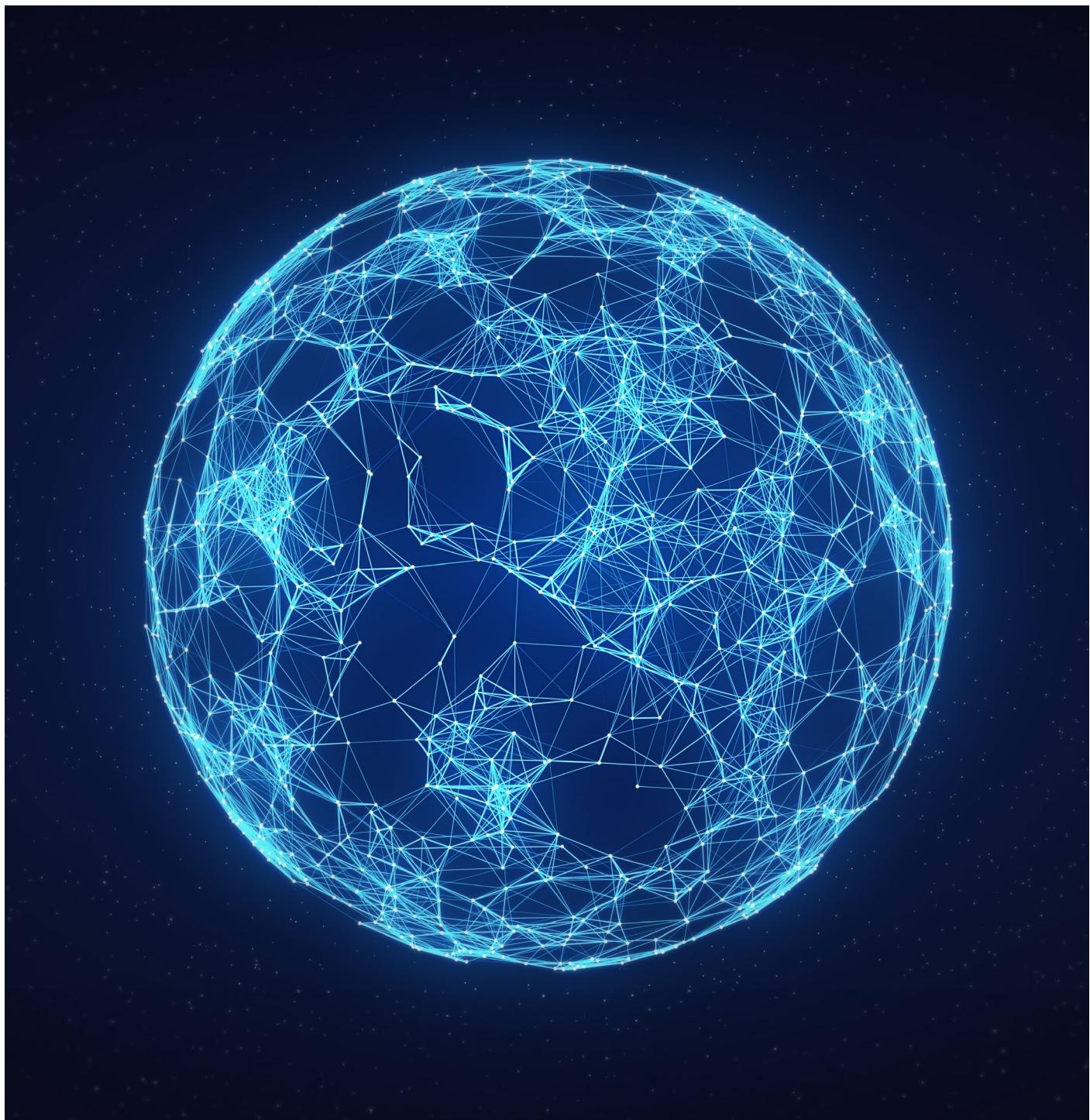
A third aspect that ranked poorly, although less pronounced, is financial authorities' **staff knowledge, skills and capacity related to fintech** ("staff knowledge and capacity"). There are a few interesting regional variations regarding this aspect, especially for fintechs in the APAC region. APAC fintechs find financial authorities have some of the most qualified staff with only 16% of fintechs rating this aspect as poor. The region also had the highest regulatory environment rating (see Figure 13), which could be a testament to continuous investment in regulatory innovation, resourcing and possibly also efforts towards greater regional regulatory coordination and collaboration, for instance, through the ASEAN Secretariate. Compared with other regions, prior studies showed that fewer regulators in APAC feel they needed skills development compared to other regions (67% in APAC compared with 93% in MENA and 100% in SSA).[21] Also, fintechs in APAC found regulator-driven initiatives such as innovation offices and regulatory sandboxes more effective in supporting their ability to grow or scale their businesses than fintechs in other regions.

By vertical, the rating of staff knowledge and capacity follows a similar pattern as the general view of the regulatory environment: most verticals have about 20% of fintechs rating this aspect poorly, with larger percentages of digital capital raising and digital payments fintechs being less satisfied. Insurtech and digital banking and savings were the most satisfied, ranking staff knowledge of regulatory authorities as adequate or strong more frequently.

Finally, when looking at how fintechs view the **clarity of regulatory approaches** specific to their business activities, this aspect was found regularly to be adequate and strong (see Figure 14). It is ranked highest among all the aspects and specifically ranked as "strong" the most frequently, with few fintechs (17%) rating it as poor.

4 How fintechs are creating a more inclusive financial system
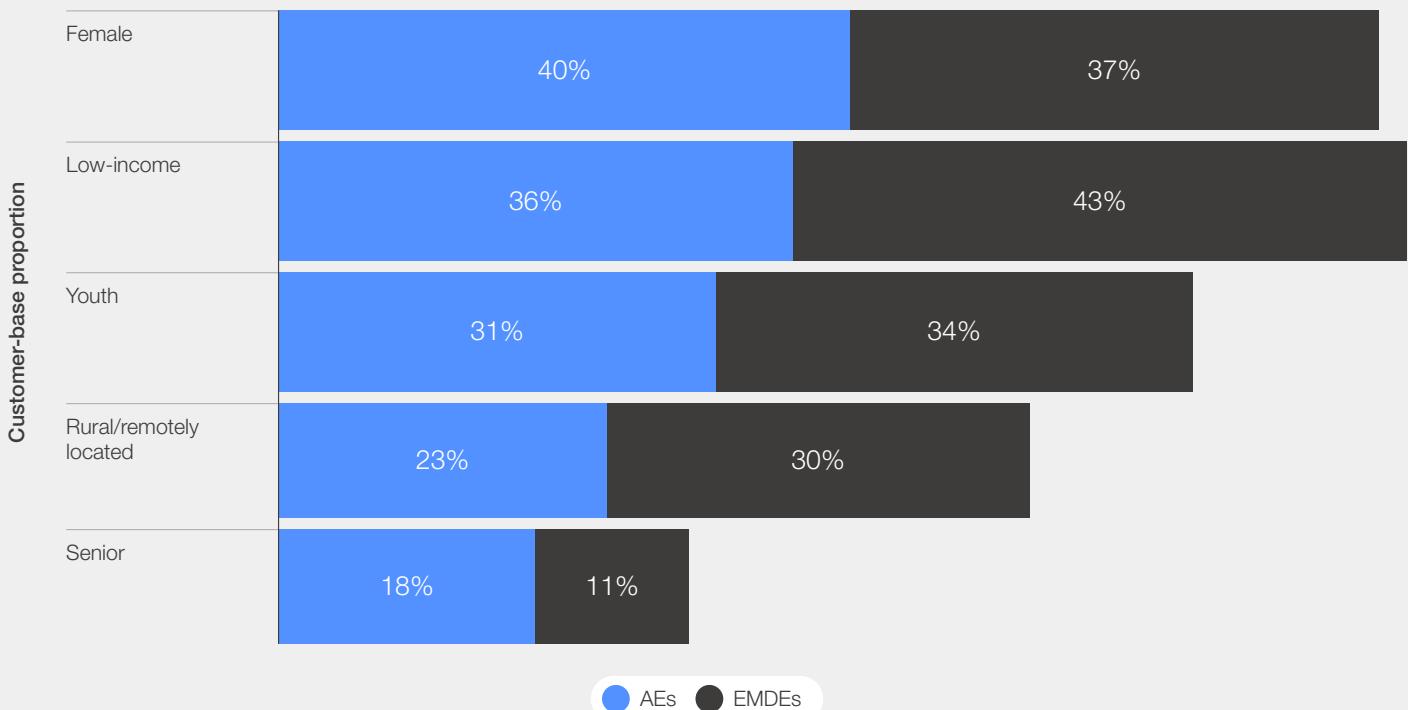
Fintechs are a vehicle to widen access to finance for traditionally underserved populations irrespective of the region.

Historically speaking, traditional banks have focused their lending practices on specific customer segments, typically those who have a well-documented and formal financial history and those who are more affluent and live in urban areas.[22] Consequently, this has resulted in limited opportunities for certain customer segments, such as low-income individuals, to be financially included and access a range of basic financial services and products. This has particularly been the case in EMDEs, where a higher proportion of these customer segments exist. Fintechs, and digital financial services more broadly, have expanded access and affordability of financial services through digital technology and widespread mobile phone adoption. They have the potential to do so for the further 1.4 billion people globally who remain unbanked and many more who are underbanked.[23]

Customer segments and their transaction value proportions

Fintechs show a clear propensity to serve traditionally underserved customer segments, a strategy that is contributing to the growth of their customer bases. Globally, female, low-income and rural or remotely-located customers constitute a substantial portion of fintech customer bases, averaging 39%, 40% and 27%, while contributing 39%, 26% and 31% of total transaction values, respectively. As illustrated in Figure 15, this trend holds consistently across AEs and EMDEs with small disparities. Notably, fintechs in AEs report a higher proportion of female customers compared to their EMDE counterparts, while EMDE fintechs serve a larger share of low-income and rural or remote customers, relatively.

FIGURE 15 | Customer segment proportions – AEs vs EMDEs

Female: AEs 40%, EMDEs 37%
Low-income: AEs 36%, EMDEs 43%
Youth: AEs 31%, EMDEs 34%
Rural/remotely located: AEs 23%, EMDEs 30%
Senior: AEs 18%, EMDEs 11%

Customer-base proportion
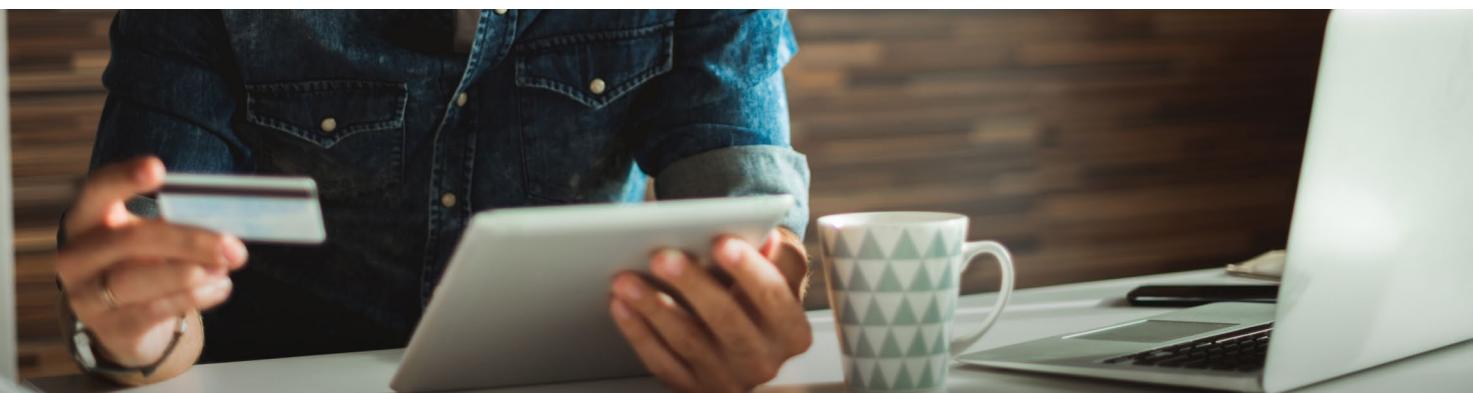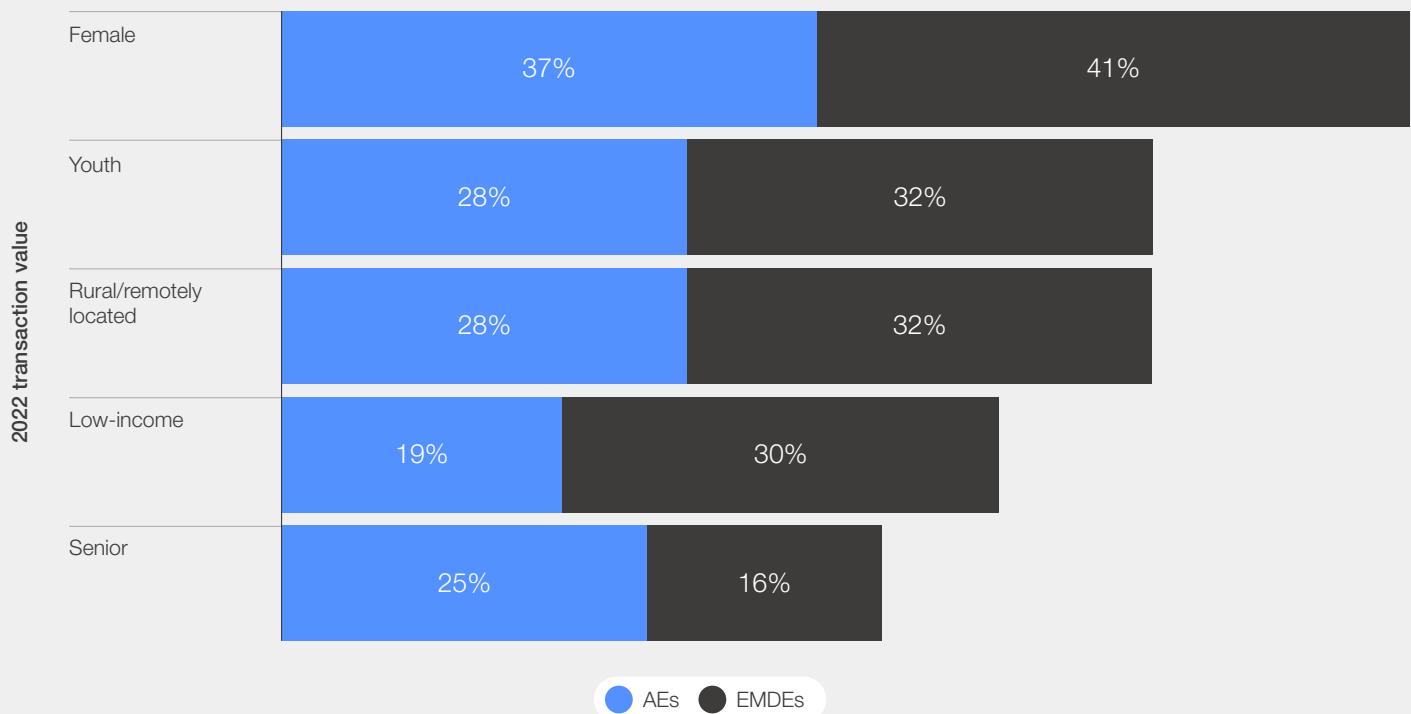
● AEs ● EMDEs

FIGURE 16 | Transaction value distribution – AEs vs EMDEs

2022 transaction value

Segment	AEs	EMDEs
Female	37%	41%
Youth	28%	32%
Rural/remotely located	28%	32%
Low-income	19%	30%
Senior	25%	16%

AEs   EMDEs

❝ **Youth constitutes a larger proportion of fintechs' customer base and transaction values both in AEs and EMDEs.**

Figures 15 and 16 show that there is consistency globally across AEs and EMDEs in the proportional representation of underserved customer segments and their corresponding transaction values, indicating a trend towards more sustainable and inclusive growth for the global fintech sector.

This analysis of customer proportions and transaction values shows that fintech firms begin to challenge certain expectations in terms of business viability and profitability for serving low-income consumers, who have less disposable income by definition. Fintechs overall show a notable difference in transaction values generated from low-income customers relative to their proportion in the overall customer base. As discussed, overall, low-income customers constitute 40% of the total customer base and contribute more than a quarter (26%) to the total transaction values. However, there are nuances by vertical; for instance, digital payment firms noted the highest proportion of low-income customers at 57%, contributing 44% to transaction values. This is in line with other research that has indicated this business model tends to have one of the more proven pathways to profitability.[24]

Regionally, fintechs in SSA and MENA noted the highest proportions of low-income and rural or remotely located customers, with 47% and 46% representation for low-income customers as well as 34% and 32% for rural or remote customer segments, respectively. As illustrated in Figures 15 and 16, on average, rural and remote customers contribute slightly more proportionally to transaction value compared to their customer segment proportion. Yet, this is mainly driven by fintechs in

the MENA region, where this segment made up approximately one-third of their customer base and contributed around 52% to the total transaction values, according to the survey data.

Fintechs could also challenge the gender bias in finance. Examining different regions, MENA leads, with females constituting 45% of fintechs' total customer base, followed closely by APAC and US and Canada at 42% and 41%, respectively. When assessing the proportional contribution to total transaction value, MENA stands out even more. Their female customers contribute nine percentage points more to transaction values than their customer base representation, accounting for 54% of the overall transaction values. In contrast, European fintechs report the lowest proportion of female transaction values, at 28%. This is perhaps due to the strong presence of digital capital-raising firms in Europe, which exhibit the lowest proportion of female customers among various verticals, standing at 30%. Additionally, when considering different verticals, insurtech firms noted the highest proportion of female customers at 47%.

Youth play a pivotal role in driving fintech growth globally when considering transaction values and customer base by age. Research by McKinsey[25] has highlighted that retail banks in emerging markets tend to generate a greater share of their revenue from younger customers, whereas they derive more value from seniors in developed markets. Based on this survey findings, a different trend is observed within the fintech sector. Youth constitutes a larger proportion of fintechs' customer base and transaction values both in AEs and
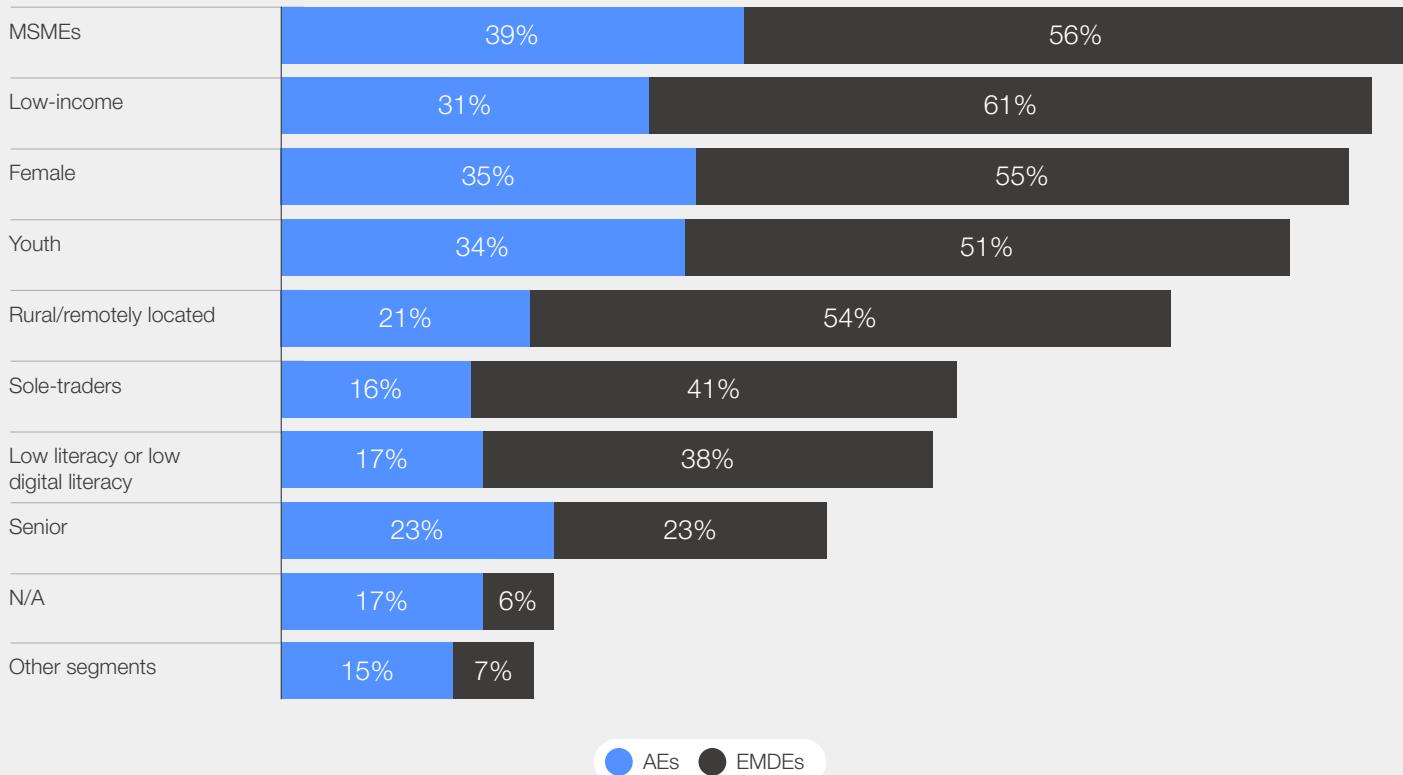
EMDEs, as shown in Figures 15 and 16. Although seniors comprise a smaller customer segment, they contribute disproportionately higher transaction values. This demographic divergence may result from disparities in disposable income as well as digital literacy levels. This suggests that finding ways to serve more seniors presents an opportunity for fintechs to tap into a high-performing segment and could help bridge the digital divide. This is particularly the case in AEs, which are characterized by higher ageing populations.

Targeting underserved customer groups

Targeted fintech product and service offerings for different customer segments – AEs vs EMDEs

Segment	AEs	EMDEs
MSMEs	39%	56%
Low-income	31%	61%
Female	35%	55%
Youth	34%	51%
Rural/remotely located	21%	54%
Sole-traders	16%	41%
Low literacy or low digital literacy	17%	38%
Senior	23%	23%
N/A	17%	6%
Other segments	15%	7%

AEs ● EMDEs

Overall, fintechs worldwide are prioritizing product and service offerings for micro, small- and medium-sized enterprise (MSME) customers, followed by low-income, female and youth customer segments. As illustrated in Figure 17, fintechs in EMDEs, with larger populations of traditionally underserved customer groups, prioritize targeted product design for these segments much more than fintechs in AEs do.

The findings show a large inter-vertical diversity in terms of creating targeted products and services. All five verticals have different product and service offerings targeting different consumer segments; no one consumer segment is grossly served by just one vertical. This demonstrates an industry-wide commitment to more customer-centric approaches. It may also indicate that fintechs are anticipating greater competition and are dedicating more resources to targeted product and service offerings.

While fintechs like digital lending and digital capital raising may be predicted to show a focus on filling the financing gap for sole traders, they focus less on sole traders and give most of their attention to MSMEs. Findings show that among the top segments targeted by digital capital raising fintechs have a strong focus on MSMEs yet are not prioritizing developing products targeting sole traders. MSMEs are the main target for fintechs engaging in digital payments (48%), digital capital raising (59%) and digital lending (48%). Data shows that digital lending and digital banking and savings fintechs are more interested in serving sole traders as a consumer group, with 32% and 39%, respectively, targeting this segment with product offerings. Furthermore, across all verticals, with over 40% of surveyed fintechs developing products to female and low-income customers is a priority, mainly led by fintechs operating in EMDEs. Interestingly, overall, fintechs in insurtech and digital banking and savings verticals are prioritizing the targeting of young customers for growth.

Incentivizing inclusion: market interventions and public initiatives

Fintechs were asked to indicate if there were any market interventions or public initiatives to incentivize or promote delivering digital financial services (DFS) to their customer segments. Overall, fintechs reported more initiatives, both market-led and public, focusing on low-income and MSME customers, followed by female customers.

Market interventions have proven particularly effective for digital lending and digital payments firms in encouraging the delivery of tailored products to marginalized customer groups. Digital payments fintechs reported that these initiatives effectively motivated them to cater to female and low-income customers, while digital lending fintechs found that these initiatives effectively incentivized them to develop services for business customers, including MSMEs and sole traders.

Lastly, market interventions were crucial in incentivizing fintechs to expand their offerings and create products tailored to underserved customer segments. A preliminary correlation analysis of market interventions and fintechs developing targeted products reveals a positive relationship, demonstrating that even market interventions with relatively low incentives effectively motivated fintechs to develop products for low-income, low-literacy and rural or remotely located customers. This underscores the significance of incentives for fintechs to make their products accessible to these customer segments, particularly those in remote areas.

| BOX 2 | **Ensuring the accessibility of services to consumers in remote or underserved rural areas** |

Even with an exponential growth in number of mobile phone users (over a billion units sold to end-users since 2014)[26] and account ownership in developing economies now at 71%,[27] consumers in rural and remote areas are still challenging to serve with digital financial services. A subset of the sample that focuses on underserved customers was asked about what mechanisms and channels they use to serve remote, harder-to-reach, last-mile customers. Of the 124 fintechs that responded to this question, 64% reported that agent networks are the most preferred means to reach these last-mile customers. Local agent connectivity networks serve as a key interface and communication channel between fintech companies and customers in remote/rural areas. A chief reason agent networks are so important is the role they play in establishing trust in products, building consumer awareness and marketing, as well as consumer education. Agents nearly always serve another role in their communities, as merchants or other kinds of commercial agents, bringing existing customer bases to fintechs.

Lower digital and financial literacy is also a challenge in rural and remote areas (sometimes due to poorer connectivity that impedes higher use of digital finance), and agents often serve as educators and communicators. In the same vein, they can incorrectly inform customers if incentives are not properly aligned. Conducting financial literacy programmes and workshops among users was the second most preferred mechanism in serving remote or rural customers (40% of these fintechs did this). Fintechs also noted offering services and customer support in the local language to enhance convenience and improve reach. The third most selected mechanism was providing services through unstructured supplementary service data (USSD) or short message service (SMS) channels (37% of these fintechs), a method largely employed by fintechs operating in the SSA region, which correlates with the region being home to poorer internet connectivity in rural areas and having one of the lowest rates of smartphone penetration. Yet this is clearly changing; already half of the SIM connections in SSA correspond to smartphones and this percentage is expected to reach 88% by 2030.[28]

Contributions to financial inclusion and environmental sustainability through product and service offerings
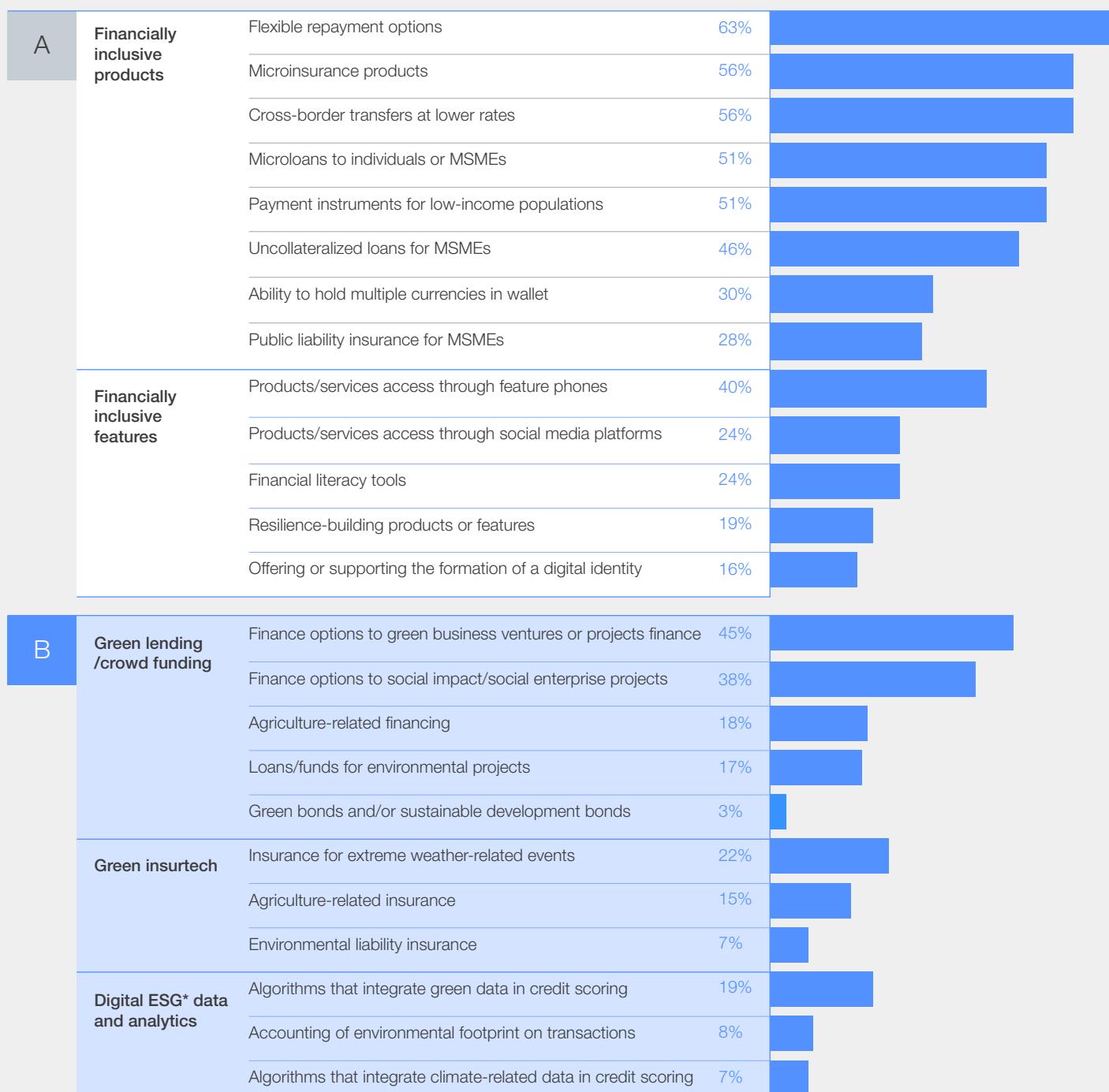
In addition to examining fintechs' reach and strategies for expansion among traditionally underserved segments, it is important to gain a deeper understanding of the specific products and services they provide that contribute to financial inclusion and environmental sustainability.

To that end, for this study, different fintech products were outlined and then grouped by their relevance to a) financial inclusion and b) environmental sustainability,[29] creating a structured framework for understanding their impact on these essential areas (see Figure 18).

It is worth noting that, in terms of inclusive products and features, "micro" products, lowering transaction costs, flexible payment solutions and broader access are typical characteristics of fintech company offerings.

FIGURE 18 | Fintech financially inclusive and sustainable products, services and features by (a) financial inclusion and (b) environmental sustainability

A	Financially inclusive products	Flexible repayment options	63%
		Microinsurance products	56%
		Cross-border transfers at lower rates	56%
		Microloans to individuals or MSMEs	51%
		Payment instruments for low-income populations	51%
		Uncollateralized loans for MSMEs	46%
		Ability to hold multiple currencies in wallet	30%
		Public liability insurance for MSMEs	28%
	Financially inclusive features	Products/services access through feature phones	40%
		Products/services access through social media platforms	24%
		Financial literacy tools	24%
		Resilience-building products or features	19%
		Offering or supporting the formation of a digital identity	16%
B	Green lending /crowd funding	Finance options to green business ventures or projects finance	45%
		Finance options to social impact/social enterprise projects	38%
		Agriculture-related financing	18%
		Loans/funds for environmental projects	17%
		Green bonds and/or sustainable development bonds	3%
	Green insurtech	Insurance for extreme weather-related events	22%
		Agriculture-related insurance	15%
		Environmental liability insurance	7%
	Digital ESG* data and analytics	Algorithms that integrate green data in credit scoring	19%
		Accounting of environmental footprint on transactions	8%
		Algorithms that integrate climate-related data in credit scoring	7%

*Environmental, social and governance

> **Microinsurance products and payment instruments for low-income populations are more common offerings across insurtechs and digital payments firms in SSA.**

As expected, fintechs in EMDEs focused more on financial inclusion compared to their peers in AEs, with more financial inclusion product offerings, although with variations between regions. For instance, micro-loans for individuals or MSMEs were largely offered by digital lending and digital banking and savings fintechs in APAC (62%), LAC (68%), MENA (75%), and SSA (59%) compared with those operating in the US and Canada (38%) and Europe (14%). Microinsurance products and payment instruments for low-income populations are more common offerings across insurtechs and digital payments firms in SSA. Variations exist with product features like flexible repayment options, a common feature for many fintechs in different regions. Over three-quarters of companies in MENA and SSA cite that they offer this, similar to firms in APAC (64%) and Europe (62%).

This correlates with EMDE's higher rates of financial exclusion and the fintech industry's key role in expanding access to finance to those excluded by traditional legacy financial services. Indeed, this data confirms that traditionally underserved customer segments make up a larger proportion of fintechs' customer bases and transaction volumes in EMDEs.

Regarding environmental sustainability products, companies in AEs were more able to provide customers with green lending/crowdfunding as well as to finance social impact projects. It is also useful to understand the larger context of fintechs reporting the lack of sustainable finance schemes, both market-led and regulatory-driven, which was prevalent globally (see Figures 10 and 11). This may be impeding companies' abilities to expand and improve sustainable or inclusive product offerings as evidenced by fintechs reporting a distinct lack of products in ESG data and analytics, including climate-related data integration and environmental footprint accounting. It was only in SSA that a relevant number of companies were integrating green data into credit scoring analysis. In APAC and Europe, over 50% of digital capital raising firms provided customers with green and social project options. In contrast, LAC led in loans/funds to environmental projects.

BOX 3 | Mapping the Sustainable Development Goals to fintech

The United Nations Secretary-General created a task force on digital finance to recommend ways in which digital financing can accelerate the financing of the Sustainable Development Goals (SDGs), adopted by the UN in 2015 as a universal call for action to tackle poverty and other social issues. The task force considers fintech companies key actors in advancing this agenda and encourages them to commit to (a) greater product innovation in support of SDGs, (b) principles of SDG-aligned digital financing, and (c) developing corporate governance mechanisms to ensure they are operationalized.
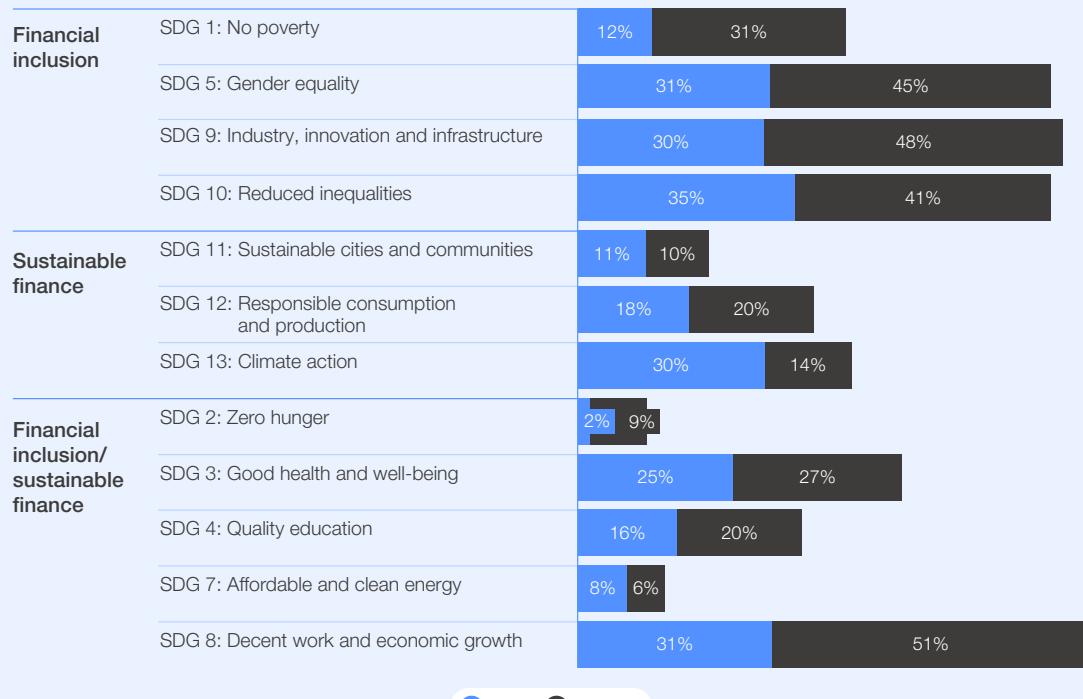
Fintechs increasingly include the UN SDGs in their business strategies, making them agents for catalysing sustainable finance and thus a green and inclusive economy. An analytical framework was first used to group SDGs and designed questions for fintechs about their products, based on the framework provided by the UN Capital Development Fund (UNCDF),[30] focusing on the linkage of sustainable finance and financial inclusion as well as their relation to environmental, social and governance (ESG) focus areas, which support SDG outcomes. Both financial inclusion and sustainable finance overlap and create linkages. Similar to product, services and features offerings, fintechs prioritized SDGs linked to financial inclusion more than those linked to sustainable finance. As shown in Figure 19, notably, SDG 5 (gender equality), SDG 9 (industry, innovation and infrastructure), SDG 10 (reduced inequalities), and SDG 8 (decent work

and economic growth) emerged as the focal points for fintech alignment, with 38% to 41% of respondents signalling their commitment to these particular SDGs. Alignment with these four SDGs is mainly driven by fintechs in EMDEs. Fintechs in these markets may have goals related to reducing inequality not only within their jurisdiction but also to reducing inequality globally. The high response rate for SDGs 8 and 9 may relate mostly to the key role of fintech in financial innovation and increasingly in a broadening digital economy, with many fintechs in SSA and MENA aligned with these SDGs. If fintechs continue to prioritize this in years to come, deeper research can show how they see their contribution to industry and infrastructure.

In contrast, fintechs in AEs were more aligned with sustainable finance SDGs. Fintechs operating first in Europe and secondly in the US and Canada and APAC were more likely to report SDG 13 (climate action) compared to other regions. The firms operating in the European region also led in sustainable product offerings, and two-thirds of fintechs reported a need for supporting mechanisms to better incentivize sustainable finance. The region is known to be working towards sustainable finance, for instance, the development of a taxonomy for sustainable activities and the European Commission's adoption of the European Green Deal, a set of policies for reducing net greenhouse gas emissions by at least 55% by 2030.

FIGURE 19 | **SDG linkages – AEs vs EMDEs**

Category	SDG	AEs	EMDEs
Financial inclusion	SDG 1: No poverty	12%	31%
	SDG 5: Gender equality	31%	45%
	SDG 9: Industry, innovation and infrastructure	30%	48%
	SDG 10: Reduced inequalities	35%	41%
Sustainable finance	SDG 11: Sustainable cities and communities	11%	10%
	SDG 12: Responsible consumption and production	18%	20%
	SDG 13: Climate action	30%	14%
Financial inclusion/ sustainable finance	SDG 2: Zero hunger	2%	9%
	SDG 3: Good health and well-being	25%	27%
	SDG 4: Quality education	16%	20%
	SDG 7: Affordable and clean energy	8%	6%
	SDG 8: Decent work and economic growth	31%	51%

● AEs ● EMDEs

Source: Adapted from UNCDF (People, Impact, Planet, Explanatory Note 2022). The SDGs' priorities by fintechs are highlighted.
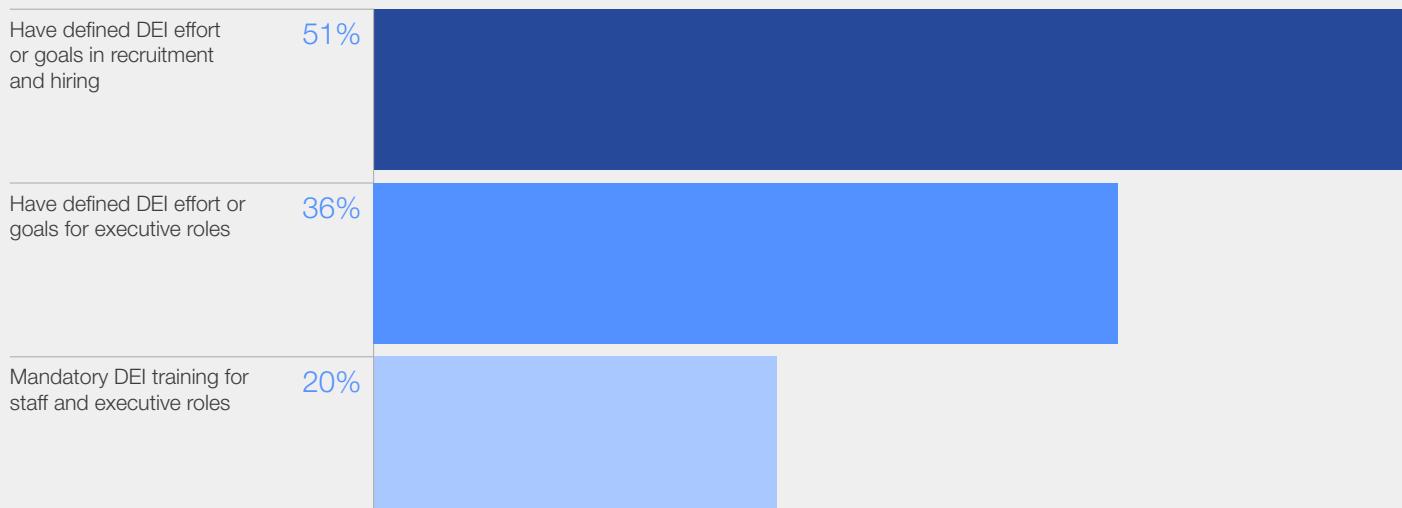
Fintech and diversity, equity and inclusion (DEI)

According to McKinsey, narrowing the gender gap globally would add $12 trillion to gross domestic product (GDP) by 2025.[31] According to the World Economic Forum's *Global Gender Gap Report 2023*, at the current rate of progress, another 131 years are needed to close the gender gap, representing multiple generations to parity.[32] Separately, although related, as companies have begun to prioritize DEI in the workplace, they have committed resources to DEI initiatives. In 2020, DEI-related expenses were estimated at $7.5 billion and are projected to more than double by 2026.[33]

FIGURE 20 | **DEI strategy implemented by fintechs**

Have defined DEI effort or goals in recruitment and hiring	51%
Have defined DEI effort or goals for executive roles	36%
Mandatory DEI training for staff and executive roles	20%

In assessing the fintech sector's standing concerning DEI initiatives and gender representation within executive positions, the research found that globally, many fintechs have prioritized DEI in recruitment, followed by goals for executive roles, while investing less in mandatory training (Figure 20). This was found to be true across all verticals. However, digital banking and savings fintechs are an exception, with DEI goals defined for executive roles prioritized over the other two measures, noted by 65% of this fintech vertical. In contrast, less than 10% of digital capital raising firms reported defined goals and mandatory training for their staff and executives on DEI.

Data shows that fintechs in the US and Canada led the way in defining DEI goals and in having mandatory training, which correlates with a general trend in the region where more and more employers are offering training on DEI in the workplace.[34]
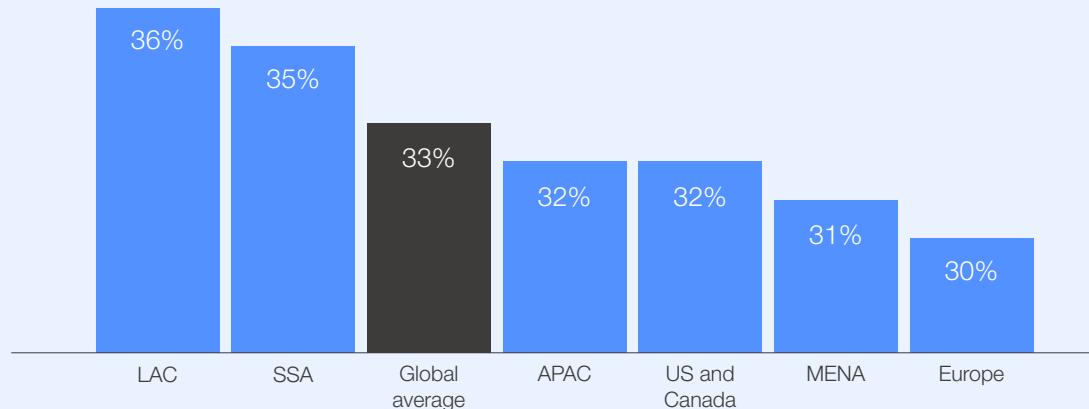
BOX 4 | **Female representation in executive roles**

The fintech sector showed stronger female executive representation than the finance industry average. This makes the fintech sector look more like the technology sector regarding female executive representation. On average, of the fintechs surveyed, the majority of their executives identified as male, with the female executive proportion reported as 33%, as seen in Figure 21. According to a survey by Deloitte, only 18% of C-suite positions in the financial services industry were held by women.[35] Technology companies report better globally, with 28% of women in leadership roles according to a 2023 report by DDI World.[36]

FIGURE 21 | **Female executive proportion – global and regional averages**
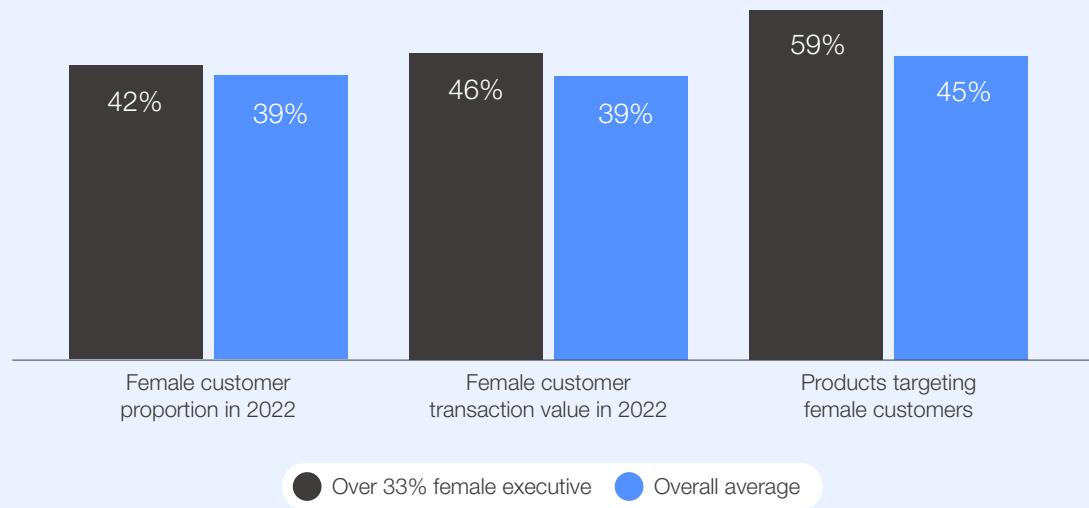
Interestingly, the female executive proportion was remarkably similar in both EMDEs (33%) and AEs (32%). It is worth noting that by region, fintechs in Europe ranked last in female representation at 30%. According to McKinsey, there is a positive correlation between the number of females in leadership and the financial performance of a company.[37] In the same report, it is noted that companies with more than 30% female executives were more likely to outperform less gender-diverse companies. This suggests fintechs may be harvesting good financial results in terms of market performance by keeping a higher-than-global-average rate of female leadership.

In this study, fintechs with higher-than-global-average rates of female executives are indeed showing a stronger orientation to female customers. Correlation analysis revealed a clear positive relationship between the presence of female executives and key indicators (see Figure 22). Fintech companies with a female executive will experience a notable 12% increase in their female customer base. This correlation extended to their product offerings, with a significant 30% increase in products designed to target female customers. This pattern is found for both AEs and EMDEs, showing how gender equality and reduced inequalities are equally important goals to develop globally.

FIGURE 22 | **Proportion of female customer base, transaction values generated by female customers and targeted products designed to target female customers in fintechs with over 33% female executives against overall average**

Fintech has been an important agent in advancing financial inclusion and the industry is furthermore showing a desire to harness new technologies and measures to contribute to various SDGs, particularly data analytics and machine learning to develop ESG-oriented products, distribute them to broader populations and to monitor progress towards the SDGs.

Fintechs can meaningfully contribute to efforts of making the financial system more sustainable and greener, as well as provide the infrastructure and scalability to serve more consumer segments who have been previously underserved. This particularly includes lower-income populations, rural and remote communities in EMDEs, many of which are the most vulnerable to the effects of climate change and also have persistent challenges in accessing finance. Indicators concerning DEI and gender representation in executive roles underscore fintech's broader role in promoting a more inclusive financial system. Moreover, digital tools related to the regulation and supervision of fintech will further support regulators and policy-makers in creating a more enabling regulatory environment to support sustainable and inclusive growth.

5 An eye to the fintech future

Fintechs view artificial intelligence as being the most relevant topic for fintech industry development over the next five years.

This report concludes with an eye to the future. As the first report under the Future of Global Fintech research initiative, this research also sought to provide fintechs with an opportunity to share their own views on what topics and issues will be most relevant for the development of the fintech industry in the next five years.
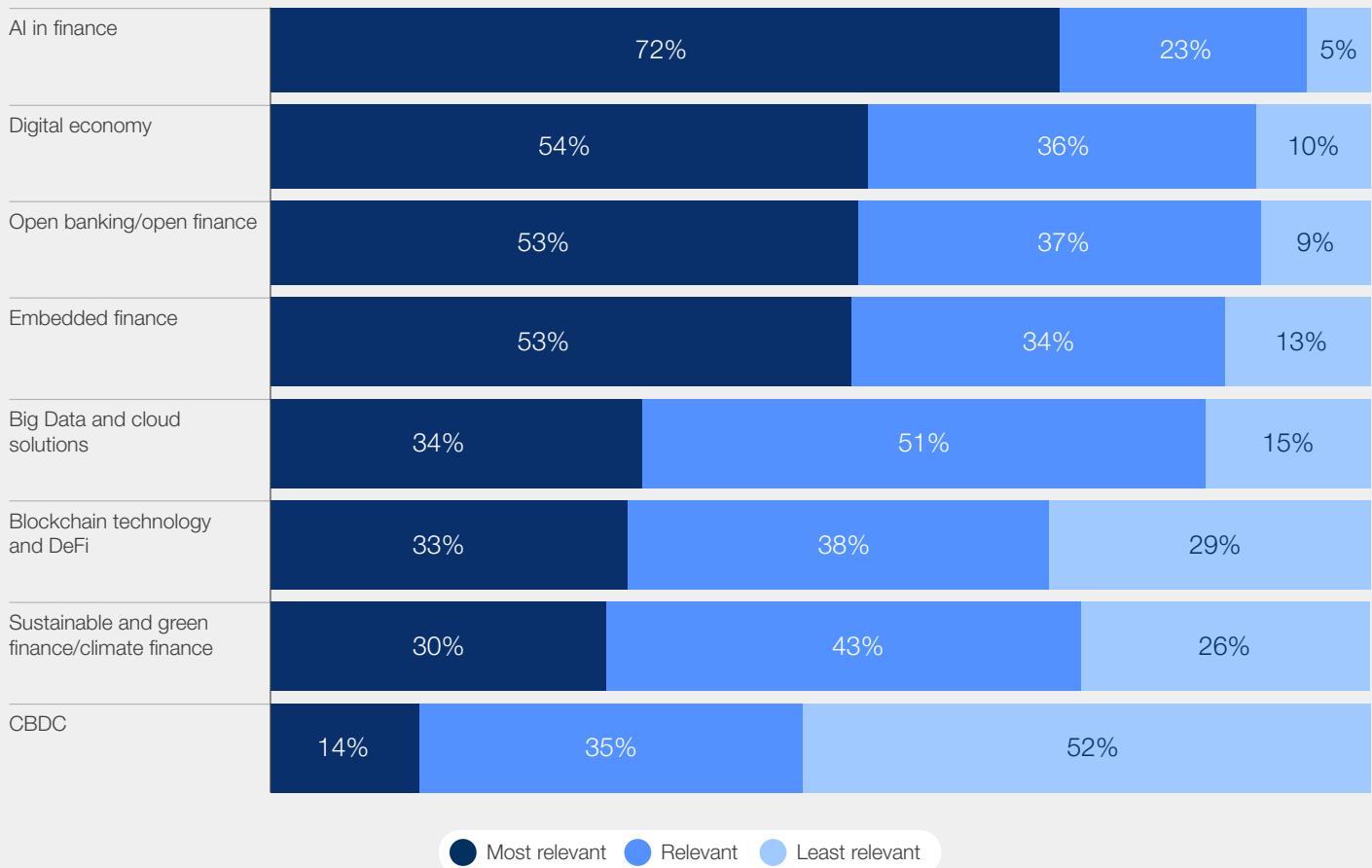
Out of eight options, artificial intelligence (AI) was consistently cited as the most relevant (see Figure 23), and this holds true across almost all verticals. It is likely that the impact of AI will be compounded as it affects fintech on multiple fronts, from changes to business models to customer engagement to the adherence to emerging regulations of AI in financial services.

Embedded finance,[38] the digital economy and open banking[39] were all nearly tied as the second most relevant factors (53-54%) for surveyed fintechs. Fintechs expect the continued growth and use of digital platforms, which will drive the digital economy and, in turn, more embedded finance products. Open banking and open finance will play a critical role in enabling data sharing at scale with customer consent, spawning further innovations in business models and new products.

FIGURE 23 | **The most relevant, relevant and least important topics for fintech industry development in the next five years, according to fintechs**

| Topic	Most relevant	Relevant	Least relevant
AI in finance	72%	23%	5%
Digital economy	54%	36%	10%
Open banking/open finance	53%	37%	9%
Embedded finance	53%	34%	13%
Big Data and cloud solutions	34%	51%	15%
Blockchain technology and DeFi	33%	38%	29%
Sustainable and green finance/climate finance	30%	43%	26%
CBDC	14%	35%	52%

● Most relevant ● Relevant ● Least relevant
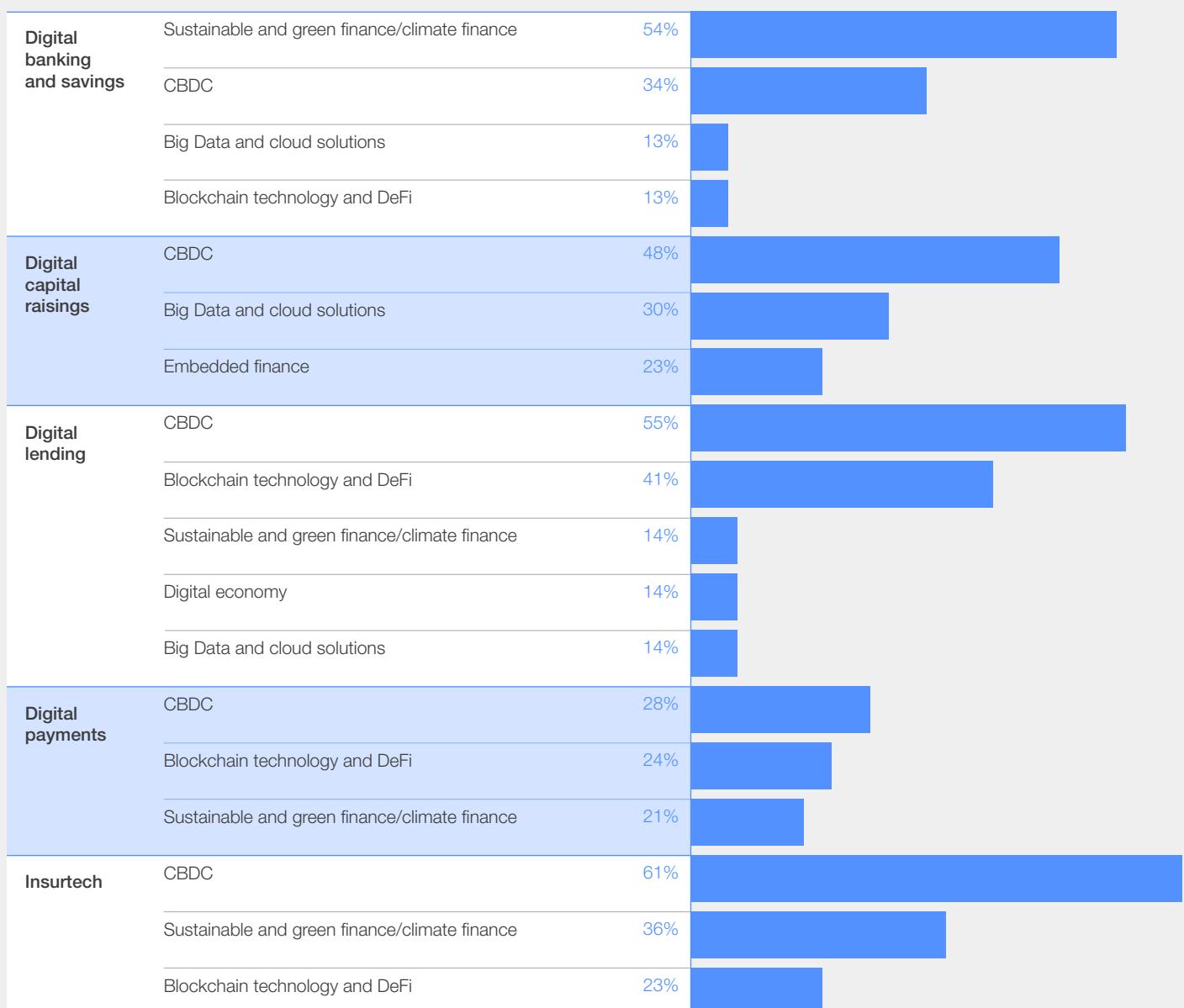
❝ **Embedded finance, the digital economy and open banking were all nearly tied as the second most relevant factors for the fintech industry in the near future.**

Fintechs in AE and EMDEs follow a very similar overall trend. This may reflect a level of convergence as the global fintech industry matures and fintech firms expand and operate across jurisdictions and geographical regions.

Figure 24 shows comparatively less important topics for the surveyed fintechs in the next five years, such as central bank digital currencies (CBDCs) and sustainable finance/climate finance. Both are nascent areas that may gain more momentum in years to come, which will no doubt have implications for the development of fintech.

Yet there is important variation in how fintechs view the topics related to digital assets, i.e. CBDCs, blockchain technology and decentralized finance (DeFi). For instance, while digital lending fintechs disproportionally cite blockchain as less important in contrast with other verticals, digital capital raising fintechs rank blockchain as most relevant up to three times as frequently as other verticals do. This perhaps speaks to how strongly digital capital raising fintechs see the potential for blockchain to revolutionize capital raising, with activities such as on-chain bond issuance and real-world assets tokenization gaining momentum globally.[40]

FIGURE 24 | **The least important topics for fintech development in the next five years – by business model**

Business model	Topic	%
Digital banking and savings	Sustainable and green finance/climate finance	54%
	CBDC	34%
	Big Data and cloud solutions	13%
	Blockchain technology and DeFi	13%
Digital capital raisings	CBDC	48%
	Big Data and cloud solutions	30%
	Embedded finance	23%
Digital lending	CBDC	55%
	Blockchain technology and DeFi	41%
	Sustainable and green finance/climate finance	14%
	Digital economy	14%
	Big Data and cloud solutions	14%
Digital payments	CBDC	28%
	Blockchain technology and DeFi	24%
	Sustainable and green finance/climate finance	21%
Insurtech	CBDC	61%
	Sustainable and green finance/climate finance	36%
	Blockchain technology and DeFi	23%

Concluding thoughts

The empirical data and insights offered in this report aim to support the goals of the Future of Global Fintech research initiative, namely facilitating evidence-based regulation and sustainable market development. This report intends to be informative to key stakeholders in the financial services ecosystem. For the private sector, this includes not just fintechs in different regions and verticals but also investors and incumbent financial institutions. Likewise, the insights from a diverse and representative sample of the fintech industry can fill a key gap for regulators and policy-makers around the world. It is also intentional that this research be useful for relevant entities such as multilateral institutions and international development agencies.

This report highlights the key trends of the fintech industry regionally and globally as a snapshot in time. As the industry continues to grow, and as technologies advance and fintechs' business models evolve, of course, the key drivers of growth and pressing challenges for the industry will change. Therefore, it is hoped that this report will be the first of many more empirical studies to track the trajectory of the global fintech industry, both within the Future of Global Fintech initiative and beyond. It is only possible through collective efforts that light can be shed on the development of digital financial services and understand how fintechs can impact consumers, SMEs, the wider economy and society.

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Jeeves	Oraan
Jeitto	Oxygen Foundation
Judo Bank	Oxymon
Jumo	Oye Platform Solution
Jumpstarter Crowdfunding	Paisabazaar
Jupiter Money	Paycode
Kameo	Paysend
Klarna	PayTabs
KLYM (previously OmniLatam)	Paytek
Komunal Indonesia	Paytota
KredX	PayU Payments
Lamaa for Information Technology	Payválida
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Lita.co	PolicyStreet
liwwa	PPRO Group
m2crowd	Produce Pay
MadfoatCom	Raisin
Mama Money	Rapyd
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miituo	Roger
Mintos	Sadapay
MNT-Halan	SDAX
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Monific	Selcom Paytech
Monnet Pagos en Linea	Selina Finance
Movi	ShareIn ltd
Munay	shecluded
Music Securities	Shojin Property Partners
Naua	Simply Financial Services
Nequi	SimplyGiving

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SoLo Funds	urbe.me
SpareBank 1 Spleis	Utoppia
StartupNkap	Vaki
Stella Insurance	valU
Suning Bank	Verqor
Superscript	Vianvest
SyberPay	Vivifi India Finance
Tabby	Vivriti Capital
Tech for Good Institute (TFGI)	Wave
Teengle	Wealthi
Thai FinTech Association	wemakeit
ThinCats Aus	Wengi
Thundafund	Wise
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Endnotes

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