Digital innovation in Cambodia's evolving credit landscape

Unlocking modern forms of credit and credit card opportunities in the evolving digital landscape

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Financial Inclusion: The Most Important Engine of Economic Development

Introduction

Over the last 20 years, Cambodia has blossomed economically, growing at an average annual rate of 7.7% between 1998 and 2019[1], making it one of the fastest-growing economies globally. With an ambitious goal of moving from its current status of lower middle-income as of 2015 to an upper middle-income status by 2030, Cambodia has focused on eliminating poverty, improving living standards, and empowering vulnerable communities. The development of a country-wide financial sector, enhancement of financial literacy, reduction in cost of financial services, and enabling financial infrastructure development[2] have improved Cambodians' access to quality, formal financial services. The National Financial Inclusion Strategy 2019 to 2025 drawn up by the National Bank of Cambodia aims to continue this progression.

This paper thus seeks to understand the underlying dynamics of the Cambodian economy by first understanding current market landscape and needs, measuring the markets readiness for credit, establishing the value proposition of modern forms of credit, balancing risk and returns, and sizing the opportunity.

In emerging markets like Cambodia, financial inclusion plays a critical role in the development of its economic and social spheres – opening avenues for generating income through access to credit or improved risk mitigation mechanisms, and significantly reducing unemployment. Financial inclusion is defined as the process of ensuring access to financial services where needed by all economic segments, at an affordable cost in a responsible and sustainable manner[3]. Access to financial services such as having a banking account is often seen as the first step towards broader financial inclusion by allowing people to store, move, and transact payments, and can be seen as a gateway to other financial services.

[1]The World Bank in Cambodia, 2022 | www.worldbank.org
[2]Cambodia Financial Inclusion Refresh 2021 | www.UNCDF.org
[3]The World Bank Definition of Financial Inclusion, n.d. | www.worldbank.org

Financial Institution Account Penetration 2011 - 2021

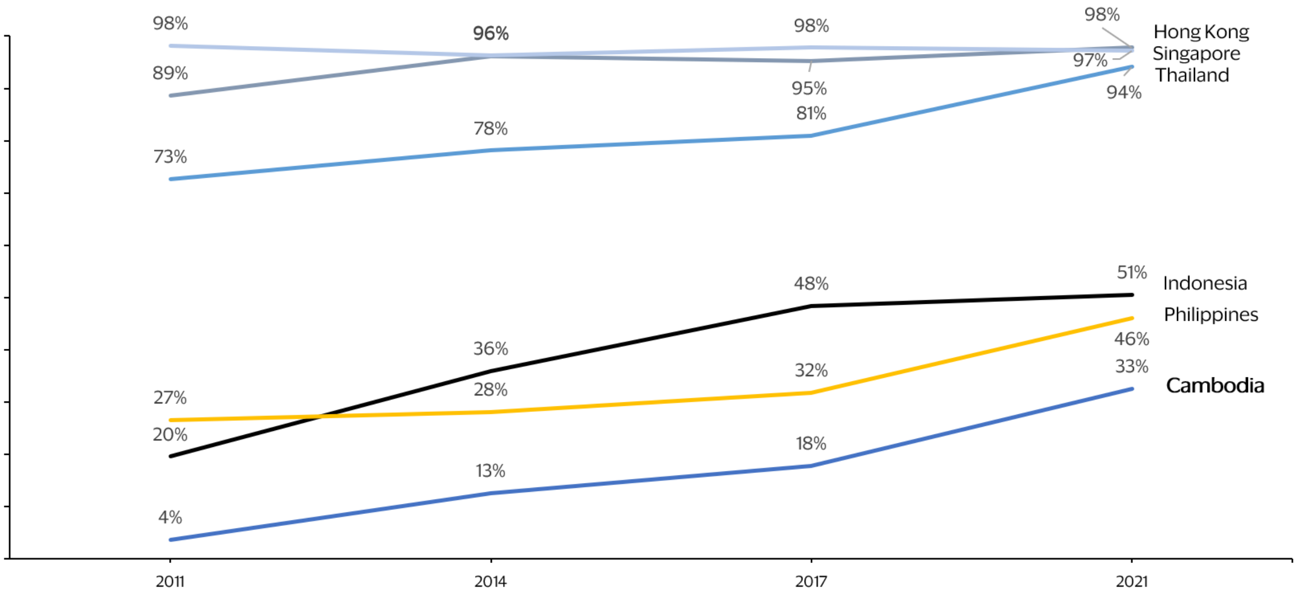


Figure 1, Source: World Bank Findex

Whilst Cambodia's financial institution account penetration has grown noticeably over the last 10 years (23.3% CAGR)[4], benchmarked against other Asia Pacific region peers, Cambodia is still at a nascent stage and has opportunities to improve financial inclusion.

Through a focus on accelerating financial inclusion, the ease and accessibility of credit to Cambodians has been strongly supported by the government. It is without doubt that credit is one of the key drivers of a nation's economic development. Credit ensures the economic needs of agricultural, commercial, and industrial sectors are met by providing liquidity to farmers to increase agricultural production, and by facilitating large-scale production of commercial and industrial goods, lowering cost. Beyond the commercial sector, credit enables individuals to accomplish critical livelihood tasks such as starting a business, securing a mortgage, getting a student loan, and even purchasing daily necessities.

The rise of digital innovation helps to further increase financial inclusion by improving access to financial services and credit for individuals and businesses, particularly those who are unbanked or underbanked. The adoption of mobile banking and digital payment services lowers the barriers to entry for financial services, making it easier for credit to be accessed without having to visit a physical bank branch or relying on borrowing cash, bringing in more people to participate in the formal financial sector.

On top of increasing reach to the underserved population, the use of data from digital services can help to support more robust and dynamic creditworthiness checks, as well as identify areas where individuals may be lacking financial knowledge. For example, data can be used to identify gaps in people's understanding of digital transaction security and develop educational materials that are specifically designed to address these needs. Enabling individuals to build their knowledge in financial services helps to build trust in the financial sector and establish transparency in the digital ecosystem, which eventually encourages digital participation.

The opportunity of having measurable economics due to digital participation can be drawn parallel to Bangladesh – a country making strides towards a digital economy as a means towards a fully inclusive digital payments ecosystem. Government-to-Person (G2P) digital payments have grown significantly, and further digitization of G2P payments could save an estimated US$146 million annually across six major social safety net programs, translating to 44% of total operating costs of the six programs[5]. It is also estimated that digitizing credit disbursements in the agricultural sector can add 45% or $2.7 billion annually to Bangladesh's GDP[6].

[4]Worldbank Findex n.d. | https://www.worldbank.org/en/publication/globalfindex
[5]Better Than Cash Alliance – Building Digital Bangladesh: The Way Forward for Digitizing Payments, 2016 | www.betterthancash.org
[6]Better Than Cash Alliance – Digitizing payments, 2022 | www.betterthancash.org

Market Landscape

A borrower's economy: A growing appetite for bank credit

Before the Covid-19 pandemic, Cambodia had already established itself as one of the most loan-saturated markets in the world due to the proliferation of microfinance institutions and unlicensed lenders. In particular, the informal loan market has been a key focus of regulators, given high interest rates and widespread illegal practices such as fraudulent lending that affect the financial stability of the banking sector in Cambodia[7].

As of August 2020, almost 2.2 million of Cambodia's 10 million-odd adults had an outstanding microcredit loan[8]. The average microcredit debt was US$3,320, approximately twice the amount of Cambodia's annual GDP per person[8].

As spending changes, consumer debt often fluctuates, which is a common phenomenon during pandemics and economic downturns[9]. In Cambodia, the borrowing rate decreased from 42% in 2015 to 27% in 2021 (Figure 2). This could be due to a general shift to longer-term credit or a decrease in borrowing attributable to financial uncertainty caused by the Covid-19 pandemic[10].

Sources of Credit in Cambodia

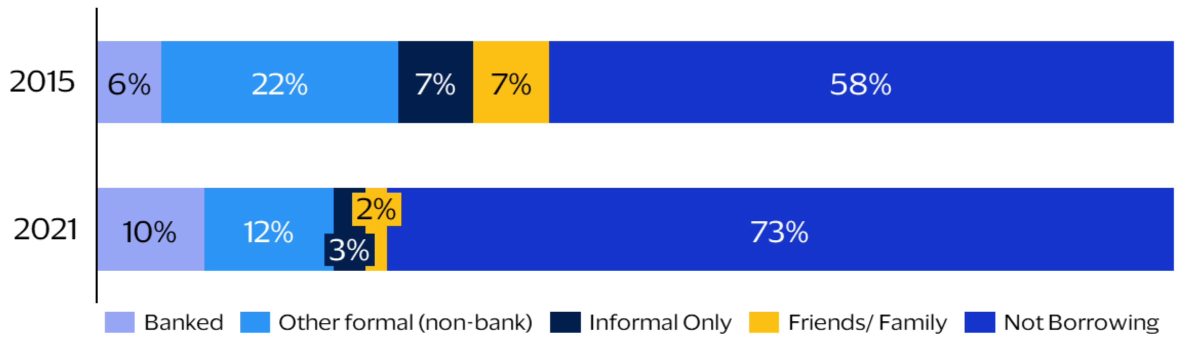


Figure 2: Source: Cambodia Financial Inclusion Refresh, National Bank of Cambodia Riel Stability Development Annual Report

More interestingly, there has been a shift in the source of credit, with a substantial increase in bank credit while borrowing from other sources have fallen[10]. The total bank credit had also increased from US$13.9M in 2016 to US$31.9M in 2021, constituting 2.3 times increase (Figure 3).

[7]Banks, MFIs plan to target informal loan practitioners, 2023 | The Phnom Penh Post | www.phnompenhpost.com
[8]Cambodians are bingeing on microfinance loans | The Economist | www.economist.com
[9]Consumers Reduce Overall Debt During Pandemic, 2020 | Experian | www.experian.com
[10]Cambodia Financial Inclusion Refresh 2021 | UNCDF | www.UNCDF.org

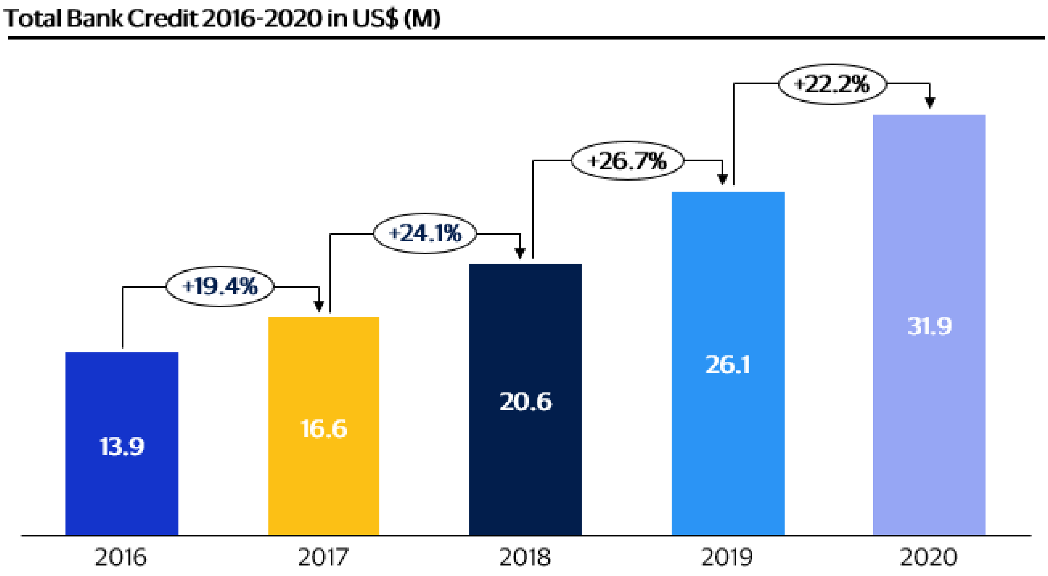


Figure 3: Source: NBC 2020 Annual Supervisory Report

Cambodia's borrowing sector does not discriminate: The need for credit is prevalent across various demographics in a relatively even manner

Delving deeper into the demographics of a borrower's profile shows a relatively even need for credit across various dimensions such as gender, age, education, and income, at an average need of 58% (Figure 4).

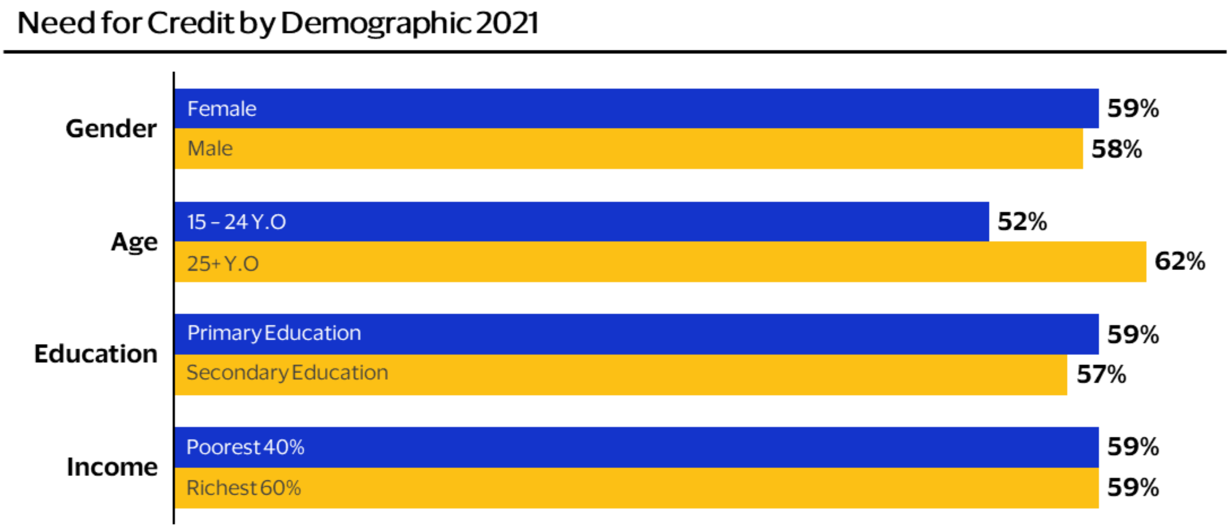


Figure 4: Source: The Global Findex Database 2021

Market Readiness

Strong Governmental support to protect a borrower-lender ecosystem

Credit has been a key contributor and support to Cambodia's economic activities and is distributed across key economic sectors (Figure 5), such as household (32.4%), trade and commerce (22.9%) and agriculture (17.9%).

Agriculture has been identified as a strong engine for economic growth, given that Cambodia is among the world's top rice exporters[11], with agriculture contributing to an estimated 22% of its Gross Domestic Product in 2021[12]. Digital finance can act as an enabler for smallholder farmers to access credit, catalyze social impact by integrating smallholder farmers into the value chain and vitalize the agriculture sector. Online payment is a key instrument that allows farmers to conduct fast, easy, safe, low-cost transactions in small amounts on their mobile phones, facilitating the shift from cash to digital for the trade of their crops. Having formal proof of digital transaction receipts provides farmers with the depth and transparency of data, such as quality and quantity of crops traded required for them to access ongoing credit and raise funds to maintain strong cashflow[13].

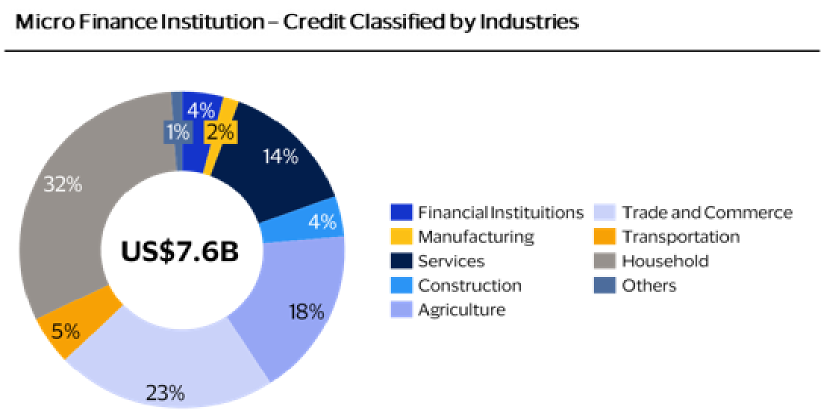
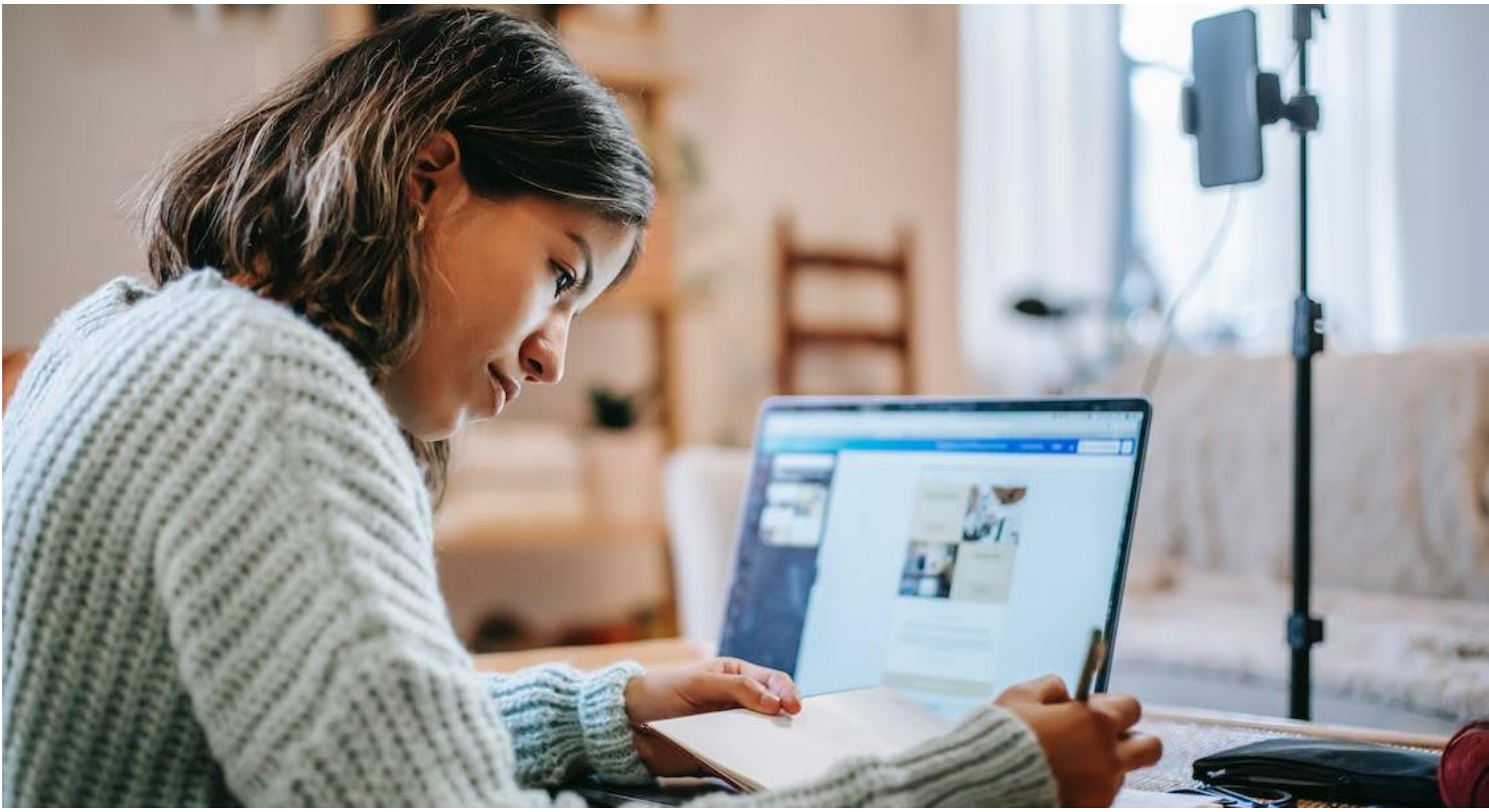


Figure 5: Source: NBC 2021 Annual Supervisory Report

[11]World's Top Exports, n.d. | www.statista.com
[12]The World Bank, n.d. | data.worldbank.org
[13]Financing Agricultural Value Chains in the Digital Age, 2017 | ADB | www.adb.org

For the credit industry to flourish, consumer empowerment and protection as well as financial sector transparency are required. Acknowledging the impact of credit, the National Bank of Cambodia (NBC) has been proactive in protecting this ecosystem by implementing several initiatives such as an 18% interest rate cap on micro-loans[14], and the Prakas No. B7-020-352 Pro on Credit Reporting to establish and enhance cooperation on the credit reporting system, with hopes of reducing credit risk and enhancing financial inclusion.

Predatory and informal lending practices that impose excessive interest rates and fraudulent lending threaten the stability and fairness of the financial system. To address this, Cambodia is proactively delivering financial literacy education to raise awareness among the public of legitimized credit institutions and how they differ from informal credit providers[15]. The Cambodian Association of Finance and Technology, Cambodia Microfinance Association and Association of Banks in Cambodia have also implemented the Banks and Financial Institutions' Code of Conduct to enhance integrity, trust and transparency in the financial sector to protect consumers and investors and promote sustainable development[16].



[14] Impacts of Interest Rate Cap on Financial Inclusion in Cambodia, 2021 | IMF eLibrary | www.elibrary.imf.org
[15] Central Bank: Illegal Loans Bad for Borrowers and for Industry, 2020 | The Phnom Penh Post | www.phnompenhpost.com
[16] Cambodia plans crackdown on predatory and informal lending practices, 2023 | www.cambodiainvestmentreview.com

Value Proposition of Modern Forms of Credit

Credit as the pathway to financial inclusion

A comparison of multiple forms of credit is set out below to assess the features of each credit type and how they differ according to consumer needs (Table 1). While personal loans, micro-loans and installment programs tend to be offered by a wider variety of providers at a fixed term, credit cards tend to have more flexible repayment terms and be offered by licensed banks. Annual credit card fees are also pre-determined with no hidden charges. As such, individuals seeking shorter term loans, flexible repayments, and global ongoing access at a pre-determined annual fee, can consider credit cards as their means to credit.

Comparison of different Credit Sources

Credit Source	Credit Card	Personal Loan	Micro-Finance	BNPL
Instrument Concept	Card issued by Bank allowing cardholder to purchase goods & services on credit	Money borrowed from a Bank, Credit Union, or Online lender with fixed payments	Smaller loans taken up by individuals or small business with credit need	Installment loan taken up by individuals that divide purchase into multiple equal payment
Usage and Facilitation	Global ongoing access to funds	Upfront lump sum	Upfront lump sum	Installment
Annual Interest Rate	18% - 24% Interest free period	18% cap	18% cap	<=21%
Loan Amount	Based on credit limit assigned	Depends on needs	$1.5K - $50K	$300 - $30K
Loan Period	Flexible Repayment	Fixed term up to 12 months, Scheduled Repayment	Fixed term up to 12 months, Scheduled Repayment	Fixed term up to 24 months, Scheduled Repayment
Fees and Charges	Annual Fees	Bank service and pre-payment charge (~5%)	Loan related fees e.g. commission fees, credit insurance (<5%)	Agreement fee ($3 - $6)
Eligibility	Minimum Income requirement	Minimum income requirement, collateral	Minimum income requirement, collateral	Minimum income requirement

In addition to different credit sources, there are also varying physical form factors of credit credentials based on the level of market development. A physical form factor of credit credential refers to a physical or tangible representation of a credit account that can be used for making purchases or accessing credit[17]. Examples include physical credit cards, virtual credit cards, mobile payments and wearables.

Credit cards	Virtual credit cards
Physical credit cards are one of the most common ways to access credit and make payment	Virtual credit cards are a digital version of a physical credit card. These cards can be used for online purchases and are linked to an existing credit account

Mobile payments	Wearables
Mobile payment apps allow customers to make purchases using their smartphone or other mobile devices	Some credit cards and mobile payment apps can also be linked to wearable devices such as smartwatches and fitness trackers which allow consumers to make payments with a simple tap on the wrist

Table 1: Source: VCA Analysis

Focusing on the Scheme Credit model, credit cards offer a better value proposition in terms of flexibility of repayment, building positive credit history and digital transparency

Flexibility of repayment
While personal loan borrowers have a finite time frame to repay through scheduled payments, credit card holders have ongoing access to funds if their account remains in good standing and can repay at their discretion.

Financial inclusion
Credit cards act as a form of controlled micro-finance by allowing consumers to access credit, build a positive credit history and receive financial literacy education. Accessing credit card statements online also provides consumers information about their spending habits which help them to understand more about being responsible credit users. In some markets, banks also use the mobile form factor to proactively alert customers of payment obligations and provide bonuses for paying on time or early.

Digital transparency
The use of credit cards provides consumers with a clear and traceable record of purchase transactions, which helps to prevent fraud and improve financial accountability as discrepancies in spending can be identified. Transaction records include granular data such as the type of purchases made and purchase frequency which also identify consumer behaviors to be supported.

[17] Credit card payments evolve beyond the mobile wallet, 2018 | Chicago Sun Times | www.chicago.suntimes.com

In addition, from the credit card providers' perspective, credit cards provide a win-win situation in terms of **financial sustainability and loyalty for providers**. Credit cards provide a consistent revenue stream for providers that can be invested to fund the development of innovative digital solutions and world-class security infrastructure to deliver a secure, seamless and personalized experience for customers and the broader financial sector. Research has also shown that cardholders who have debit and credit cards with their main financial institution tend to have higher stickiness and customer loyalty, with less than 20% noting an intention to switch providers[18].

Bank-issued BNPL as another form of transitionary credit

Besides credit cards, Buy Now Pay Later (BNPL) offered by banks supports customers with short-term financing in the face of adversity, allowing customers to transition to other forms of credit. By offering short-term credit with manageable repayment terms, banks can help customers to build their credit history and financial stability. In countries such as Australia and New Zealand, banks have successfully used BNPL for credit provisioning and credit inclusions. At present, no banks in Cambodia are offering BNPL.

Risk Management

Responsible lending and prudent risk management practices are crucial areas of focus for the credit business

As with all credit products, credit risk is a form of risk that is common and difficult to avoid entirely. Instead, lenders should focus on managing credit risk through the assessment of customers' willingness and affordability to pay in order to monitor, control, measure, and minimize losses. A common way for lenders to assess customer credit risk is through credit bureaus such as Credit Bureau Cambodia that collect information related to credit for individuals.

Credit Bureau Cambodia (CBC) is the leading provider of financial information, analytical solutions, and credit reporting services to financial institutions and consumers in Cambodia, maintaining over 7 million consumers in its Credit Reporting System in 2022[19]. CBC has also focused efforts on reducing the number of "credit invisible" Cambodians who are currently unbanked.

Regardless of the level of economic development, creating and embedding credit policies that reflect market realities is a challenge across the globe. While credit bureaus play a critical role, they are increasingly seen as just one source of input for broader credit decisioning models, with other sources of input such as open banking and alternative data being considered to develop more comprehensive credit decisioning models.

The USA is an example of a developed market that has challenges around credit reports, with significant scoring spreads between various credit bureaus[20]:

- 561 to 658 (Equifax to Experian)
- 472 to 598 (Equifax to Transunion)
- 407 to 524 (Experian to Transunion)
- 630 to 689 (Experian to Equifax)

Despite differences in credit score ranges across various credit bureaus, the USA credit card market continues to flourish with over 1.25 billion credit cards in circulation as of 2023[21] and new credit score models that utilise alternative data becoming a focus of the federal agencies[22].

[18] Visa Research
[19] CBC keeps credit data of over 7M customers | www.phnompenhpost.com
[20] The Benefits of Pulling Multiple Bureaus, 2018 | AutoSuccessOnline | www.autosuccessonline.com
[21] Number of credit cards and credit cardholders, 2023 | Wallethub | www.wallethub.com
[22] New Credit Score Models and Credit Reporting Are a Focus of Federal Agencies, 2022 | Brownstein Hyatt Farber

In Mexico, less than 20% of Mexicans have access to credit[23] with an estimated 1 in 10 Mexicans[23] having access to a credit card. This is because they are generally earning less than the minimum income requirements or are largely involved in the informal economy. To enhance formal financial participation, startups have begun to emerge to provide the underserved population with more credit options and means of responsible lending. An example is Vexi, which leverages technology to build a proprietary credit scoring system that offers customers different credit card tiers. These tiers provide an increase in credit limit while lowering interest rates as customers learn how to manage their spending and prove their creditworthiness through education materials provided by Vexi. Having this modern form of credit offering benefits close to 75% of Vexi's customers base who earn an average monthly income between $600 to $800[23].

Alongside the focus on a new credit decisioning model, prudent risk management is crucial to businesses as well. Lenders can leverage on tools such as the Visa Cardholder Transaction Score (VCTS) in the underwriting process. VCTS uses advanced analytics across various transaction data points (such as a customer's spending patterns) to identify potential risk factors and provide a more complete picture of the customer's financial behavior to inform decision making. VCTS can also support lenders in streamlining the underwriting process for efficiency and can be integrated with other risk management systems to provide a comprehensive view of risk.

Market Opportunity

Opportunities to offer credit products to Existing to Bank (ETB) customers and secured credit cards to New to Bank (NTB) customers

Reducing uncertainty, managing risk and graduation, are three steps that a lender can use to manage underwriting and credit risk (Figure 6).

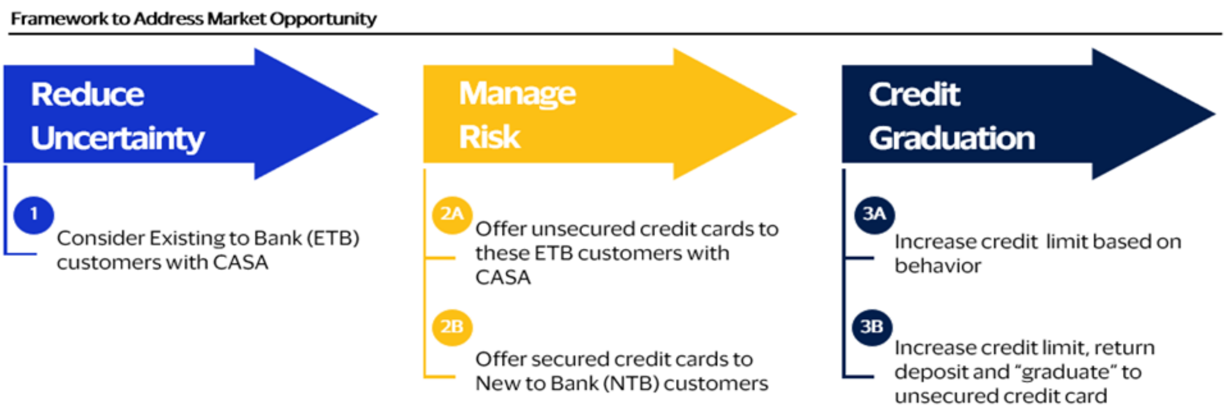


Figure 6: Visa Consulting and Analytics IPVMC Framework

Having 43% penetration of personal finance loans in the consumer loans market is an opportunity for lenders to consider revolving credit conversion (Figure 7). With close to 42% of consumers having multiple loan accounts (Figure 8), lenders can try to reduce uncertainty in underwriting credit products for these ETB customers by offering unsecured credit cards as these customers are familiar with various forms of loan products. Depending on the customer's spending behavior, a higher credit limit can be provided as part of graduation.

In addition, revolving credit is a much more efficient and cost-effective product for both consumers and lenders as compared to a single credit line.

[23] Neobank Vexi raises millions to offer young Mexicans lower interest rate credit cards | TechCrunch

Consumers	Lenders
1) Consumers do not need to apply for credit approval multiple times	1) Lenders do not need to underwrite consumers multiple times
2) If consumer exhibits good usage and repayment behavior, loan eligibility (credit line) can increase	2) Based on customer behavior, banks can focus on good quality customers who have low risk profiles
3) Every credit card comes with a built-in free loan period (no interest rate)	3) Build higher stickiness and customer loyalty

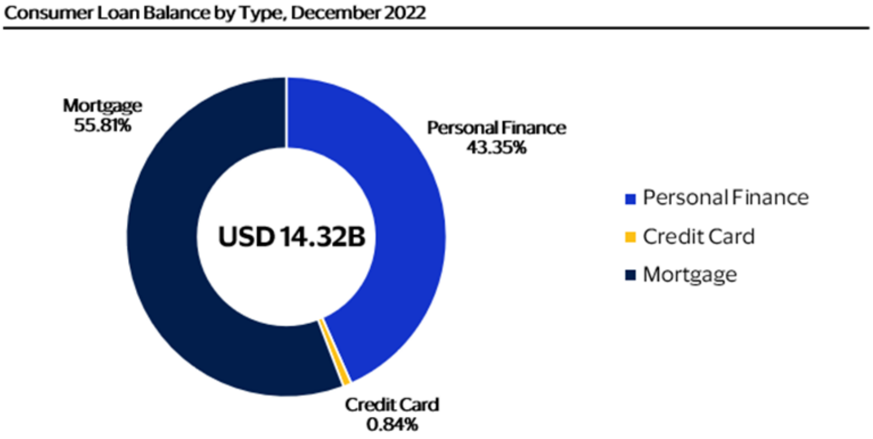


Figure 7: Source: CBC Consumer Credit Index 2022 Quarterly Report

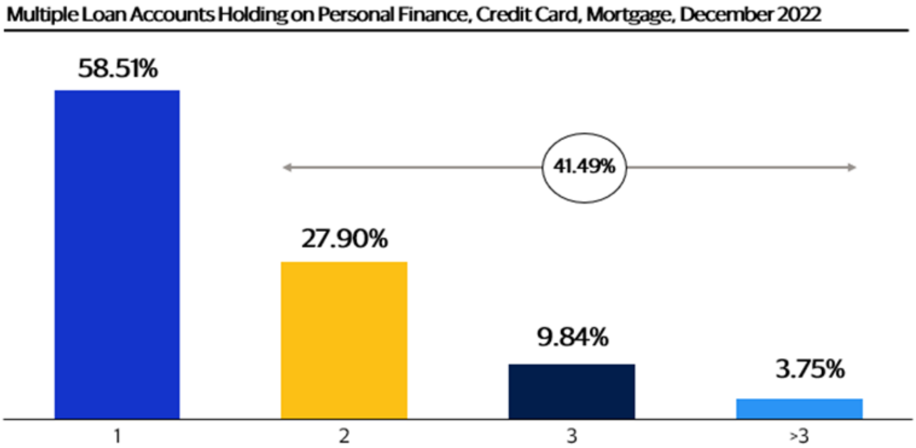


Figure 8: Source: CBC Consumer Credit Index 2022 Quarterly Report

In terms of managing unknown risk for New to Bank (NTB) customers with a lack of credit history or limited credit, lenders can consider offering this group of customers secured credit cards. Given that secured credit cards require customers to deposit a certain cash amount, the deposit offers protection to the lender if the customer makes late payment or defaults. In this manner, the lender can minimize the risk taken on, while becoming a great launchpad to increase credit lines available to cardholders upon graduation from secured to unsecured cards.

However, if payment capabilities can be estimated and good credit behavior can be projected, small unsecured lines can be offered to NTB customers as well. As confidence level in the consumer's usage and repayment behavior increases, a higher credit limit can then be offered.

Conclusion

A focus on accessing formal financial services is key to enhancing financial inclusion as part of Cambodia's economic development. Unlocking modern forms of credit in the evolving digital credit landscape lowers the barrier to entry for financial services and brings more Cambodians into the formal financial sector, encouraging safe and responsible payment transactions. Modern forms of credit also provide digital transparency to aid in fraud management and identify behavioral patterns through advanced data analytics.

Innovative technologies that make more alternative data available, such as open banking, are also key inputs alongside credit bureaus in further developing credit decisioning that manages risk and expands credit access. The government has played a key role in delivering public financial literacy education with plans to regulate the informal lending sector to enable Cambodians to build their knowledge and trust in the financial sector. With a range of strategies that include regulations and financial literacy education, digital innovation in the credit landscape presents an exciting opportunity for financial inclusion and progression towards a more transparent and sustainable ecosystem.

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- Our data scientists are experts in statistics, advanced analytics, and machine learning, with exclusive access to insights from VisaNet, one of the largest payment networks in the world.
- Our economists understand economic conditions impacting consumer spending and provide unique and timely insights into global spending trends.

The combination of our deep payments consulting expertise, our economic intelligence and our breadth of data allows us to identify actionable insights and recommendations that drive better business decisions.

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