Learning Paper

Helping Off-grid Companies Enhance Credit-risk Management Practices:

From PAYGO 1.0 to PAYGO 2.0

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Introduction

The potential of renewable-energy deployment is still largely untapped in Africa, where 46 percent of people remain without access to electricity.[1] Africa shows a great demand for solar home systems. This technology takes advantage of the continent's abundant sunshine to generate electricity without greenhouse-gas emissions, benefitting households.

SHS suppliers and investors have recognized the significant potential of renewable energy on the continent. The social and environmental benefit of this sector is a main incentive driving businesses to grow SHS sales in this underserved market.

The areas of Africa with less access to grid electricity are also characterized by lower rates of formal employment and income. Most off-grid households and enterprises can afford SHS only if they can pay for these products in instalments. SHS suppliers face the challenge of meeting the growth objectives agreed with their investors while maintaining high-quality credit portfolios and ensuring business sustainability. Sales growth can come with a significant credit risk that SHS providers must manage well to achieve sustainability.

Recent industry data show that pay-as-you-go (PAYGO) companies are collecting an average of only 62 percent of payment amounts owed to them each month.[2] This undermines the financial sustainability of the business model, and places PAYGO customers at risk of losing their purchases. As the industry and its financing partners push to finance larger systems alongside productive-use appliances, enhanced credit-management becomes crucial.

Fortunately, proven approaches are available that can solve payment-collection shortfalls and other credit-management challenges that the industry is facing. This learning paper shows how SHS providers can create structures and operations that balance growth and risk. The lessons this learning paper shares are based on the work completed with three SHS providers, all of them at a different stage of operations and growth. What these companies had in common are the competitive prices and fast pace of their market. In this competitive environment, companies are consolidating their operations, defining effective business strategies, and discovering ways to grow while managing risk.

This learning paper covers two operational models. The PAYGO 1.0 model focuses on the *quantity* of sales, whereas PAYGO 2.0 focuses on the *quality* of sales. In practice, many companies are somewhere on the scale between 1.0 and 2.0. This paper focuses on the two ends of the scale so companies reading this document can self-assess and determine which model reflects its operations:

- **PAYGO 1.0:** The operating model prioritizes revenue growth. Many SHS companies are operating according to this model. Many also fall short in protecting their customers, collecting payments, and achieving sustainable businesses.
- **PAYGO 2.0:** The model takes a customer-centric approach. PAYGO 2.0 companies aim to ensure that instalments are affordable, consider customers' financial stability, and monitor payments in detail. This model results in higher customer satisfaction, customer loyalty, better repayment behavior, fewer cash-flow constraints and—as discussed below—more profitability.

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[1] International Renewable Energy Agency, *The Renewable Energy Transition in Africa: Powering Access, Resilience and Prosperity* (Abu Dhabi: IRENA, 2021), accessed 5 June, 2023, www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/March/Renewable_Energy_Transition_Africa_2021.pdf?rev=6a9b2f3239be4031b3b074643ec58ca5.
[2] Lighting Global, *Off-grid Solar Market Trends Report 2022: State of the Sector* (Washington, D.C: World Bank, 2022), 89, accessed June 5, 2023, https://documents1.worldbank.org/curated/en/099235110062231022/pdf/P175150063801e0860928f00e7131b132de.pdf.

Off-grid industry associations are seeing investors shying away from PAYGO 1.0 companies because of the risks that inhere in this business model. In 2023, Koen Peters, Executive Director of industry association GOGLA, noted that credit risk is central to the success of the off-grid sector: “To catalyze a new generation of financing into the sector, it is critical that the industry has its credit management fully in order, across the board.” PAYGO 2.0 promises a way forward for the industry. Companies that are optimizing their credit-management practices are better positioned to attract funding from investors that are tightening their due-diligence procedures and prioritizing companies that manage their credit risk proactively.

The discussion below compares the traditional business model (PAYGO 1.0), in which credit-risk management is a secondary concern, and PAYGO 2.0. Drawing on examples, this resource offers practical guidance to companies to review their credit-risk procedures and plan their path toward PAYGO 2.0.

From PAYGO 1.0 to PAYGO 2.0

The core of PAYGO 2.0 is a culture of customer care that involves all the company's staff and agents. This culture is fostered by procedures that prioritize the customer as the company collects data, analyzes information, and manages risks.

Because changing a company's culture and policies is a process, businesses should assess what their operations involve and understand the criteria of PAYGO 2.0.

Figure 1: Steps to transition from PAYGO 1.0 to PAYGO 2.0

	PAYGo 1.0	Examples of interim PAYGo development steps			PAYGo 2.0
Culture	Focus on company's revenue	Customer loyalty programs	Net promotor score	Customer protection	Focus on customer care
Organization	Task based Call Center	Agents trained to screen clients	Random quality control client calls	Sales agents and credit teams collecting customers' data	Customer Care team in charge of final credit decision making and clients monitoring
Customer's credit screening	Down payment only	HQ admin compliance check	Clients' analysis based on staff's credit knowledge	Client's data collection and affordability assessment	Credit decision making based on statistical scoring and affordability assessment
Customer's credit monitoring	Call center push calls	Frequent client visits	Field staff portfolio bonus based on collection rates	Customization of credit in case of default	Cradle to grave client relationship
Data analytics on employee performance	Based on quantity revenue & cash	Agent quality of portfolio bonus	Rewards for client satisfaction	Staff charged with overfunding clients	Quality screening & monitoring indicators
Data analytics on Portfolio performance	Collection rate and PAR per sales agent and call center staff	Collection rate and PAR per product, geography, branch	Portfolio analytics: Vintage/cohort analysis, transition matrices, churn rates	Probabilities of default and operational costs calculated per product	Strategy and operational enhancement based on data analytic inputs

The benefits of the PAYGO 2.0 are not only limited to growth and sales, but also helps to make the business more sustainable in the long term. The benefits of a PAYGO 2.0 business model are:

Happy, loyal clients that pay on time

Highly motivated staff, easier to manage

A learning company that is self-improving

Operational efficiency

Cash and profitability

Each section of this paper explains how to transform a business model from PAYGO 1.0 to PAYGO 2.0.

Customer-care culture

Adopting a “PAYGO 2.0 culture” is a prerequisite to other organizational changes. PAYGO 1.0 companies found it difficult to implement PAYGO 2.0 customer-care and credit-management principles without changing their culture, values, and mentality toward customers.

PAYGO 1.0: HOW IT WORKS

Mission and goals

PAYGO 1.0 companies provide energy access to off-grid households and businesses, and their main performance indicator is the number of systems sold. Their investors employ similar indicators. Prioritizing the number of SHS sold can detract from the focus on portfolio quality, and the company sees defaults by customers as a risk and cost factor rather than aspects to be mitigated as an integral part of the company’s mission.

The culture of customer onboarding

The common view is that PAYGO 1.0 businesses are “volume businesses” that can afford a only light-touch customer relationship, preferably limited to marketing and sales by the sales agent. A PAYGO sale is preferably made within an hour. Fora purchase that often costs more than three times the customer’s monthly income, one hour is too little time for the customer to think it over. PAYGO 1.0 companies assume that when customers purchase an SHS, they will begin to save money by eliminating alternative energy sources.

The culture of after-sales service

When customers pay late, they receive calls from call-center staff with whom they might not have communicated before. These calls remind customers to pay and inform them of the repossession policy. Many customers are not happy with the phone calls. When their system is seized, they lose the payments they made.

How staff and agents perceive the culture

PAYGO 1.0 companies typically operate, as high-volume businesses, in a highly standardized context. Staff are held accountable for short-term results. Sales agents receive a monthly commission, and call-center employees receive weekly or monthly bonuses based on the money received that week from their assigned customers. Short-term incentives encourage short-term behavior that is not always in the best interest of the customers or the organization.

Illustrative example

A PAYGO company awarded its top performing sales agents with bonuses, with the “Top Five Sales Agent” ranking becoming a popular end-of-month topic among sales staff. When the Chief Operating Officer began to measure customer satisfaction and delinquency per agent, she found that the top performers were responsible for the riskiest credit portfolios.

PAYGO 1.0: KEY CHALLENGES

Mismatch between mission and practice

Some PAYGO 1.0 companies that are social enterprises experience a mismatch between mission and practice. Although social enterprises help underserved people, in practice a sizable portion of customers could not afford their SHS, leading to repossessions and, with an average collection rate of 62 percent,[3] causing some PAYGO 1.0 companies to financially unviable.

Large credit losses

Customers assume at the time of purchasing that they need to pay only if they want to use the system. Many do not realize that there is a payment obligation. Because PAYGO 1.0 companies do not measure the customers' creditworthiness, and sales agents are eager to sell, customers may receive products for which they cannot pay, and collection rates are unsustainably low. Moreover, not all companies verify that the customer properly understands the product and the terms of the transaction.

Low customer loyalty

Customer loyalty remains low given the limited opportunity for face-to-face contact and the lack of a personal relationship. Customers in arrears receive calls from the call center and many customers stop answering their phone or even change their phone number. Customers may feel embarrassed by product repossessions and losing the money they paid.

Staff and agents underperform and leave

PAYGO 1.0 companies typically have a high turnover of employees and sales agents. Many sales agents and call-center employees view their jobs as temporary, which leads them to chase short-term goals rather than investing in customer relationships and their career. Sales agents often face increasing dissatisfaction from their customers once defaults increase and they have exhausted their network of sales prospects.

PAYGO 2.0: WHAT'S NEW

Mission and goals

Like PAYGO 1.0 social enterprises, PAYGO 2.0 companies also aim to help people—but this culture of customer care is reflected in all aspects of the business. PAYGO 2.0 companies treat customers in the best way possible and commit to protect customers from over-financing and to offer dependable after-sales service. Companies can recalibrate their mission and goals to (re)define their values and increase trust, loyalty, and pride among all stakeholders.

The culture of customer onboarding

The onboarding process includes a detailed assessment of the customers' creditworthiness. This takes some time, and some sales staff or customers may not like it. A company may reject customers who do not meet the risk and affordability thresholds. But, in this way, PAYGO 2.0 companies protect these people from taking on liabilities they will struggle to afford. PAYGO 2.0 companies do not have "bad customers," but are aware that poor portfolio quality stems from poor credit management. This is a crucial mindset shift compared to PAYGO 1.0 companies. As PAYGO 2.0 companies collect customer data, they can see and learn from patterns and make their credit screening smarter.

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[3] Ibid.

The culture of after-sales service

If PAYGO 1.0 companies focus on solving problems, PAYGO 2.0 companies try to understand the root cause of problems. PAYGO 2.0 companies are proactive in identifying and resolving customer problems so that repossession is strictly a last resort. Customers who miss payments are offered customized solutions, which can increase customer loyalty, punctual payments, and referrals.

How staff and agents perceive their work

Organizations that care about customers should also care about their staff. PAYGO 2.0 companies see underperformance or mistakes as learning opportunities, but do not tolerate behavior that goes against the organization's values. The objective is to create a culture of trust and respect that is motivating and increases employees' loyalty. Whenever possible, employees carry responsibilities rather than only doing tasks. This creates a culture of ownership that encourages performance and learning.

PAYGO 2.0: BENEFITS

PAYGO 2.0 companies are easier to manage

PAYGO 2.0 has an unambiguous, consistent culture of customer-centricity. Clear goals and values make decisions easier at all levels. Customer-centric principles should create more alignment and less friction in the organization, allowing managers to delegate more and think strategically.

Satisfied, loyal employees and agents

PAYGO 2.0 companies motivate their staff better because people take pride in working for a company with a clear and honest culture. Staff are more likely to learn and improve their skills; gain confidence because they have responsibilities rather than mere tasks; and enjoy working with satisfied customers. Employees work harder, deliver more, and stay with the company longer.

Healthy collection rates and more cash

PAYGO 2.0 principles can increase collection rates significantly if companies:

- Screen customers' creditworthiness rigorously.
- Learn customers' preferences.
- Adopt a proactive and more empathetic credit management approach; offer individualized solutions to help customers complete their payments.
- Create and update dashboards that allow the company's leadership to detect financial and operational trends and problems quickly.

Satisfied, loyal customers and improved sales

As customers secure financing that they can afford and experience more personalized, improved service, loyal customers will bring in new customers or acquire more systems from the company. Along with improved repayment, customer loyalty increases profitability and PAYGO businesses become less dependent on new financing.

Questions to consider

We already focus our strategy on the customer. Is there really a need to change?

If customers indicate that they are satisfied with the company's service and pay punctually, then the company is advancing on the scale from PAYGO 1.0 to 2.0. However, if more than 20 percent of customers frequently pay late, the company should assess if its customer-centricity goes far enough.

We believe in standardization to cut costs and avoid errors. Will customization not affect our efficiency?

PAYGO 2.0 companies will have a standardized client onboarding process. Because the onboarding includes careful financial screening, fewer clients will default. In the event of a default, the approach should be adapted to the customer. If customized after-sales services solve problems, then they can be as or more efficient than a standardized approach.

In a PAYGO 2.0 company, why should sales agents not assess customers' creditworthiness?

Although sales can collect basic customer data, most agents specialize in selling products rather than assessing creditworthiness. As agents are given the responsibility to collect basic data accurately, they will also hone their sense of customers' creditworthiness, especially if agents understand that the PAYGO 2.0 company is serious about minimizing defaults.

Customer-care organization

This section discusses findings regarding the organizational structure and financing procedure of PAYGO 1.0 and PAYGO 2.0 companies, with the latter businesses having adopted the culture of customer care which the previous section describes.

PAYGO 1.0: HOW IT WORKS

Credit screening

PAYGO 1.0 companies assume that customers who can afford a down payment are creditworthy. Little customer data is collected or analyzed to assess a customer's real ability to pay. Some companies have trained their sales agents how to assess creditworthiness or pay a "portfolio bonus" in the hope that agents will screen their customers. These incentives do not appear to work. Sales agents prioritize selling, and an elevated credit risk rarely keeps them from going ahead with a sale. With firms paying portfolio bonuses, few sales agents met the threshold for credit-portfolio quality.

Who is accountable?

To interact with customers, PAYGO 1.0 companies typically have a call center and a network of sales agents which receives technical support from branches with employees. Call-center employees contact customers and remind them to pay. Most PAYGO 1.0 companies do not have a dedicated customer-care or credit team.

In PAYGO 1.0 companies, who is responsible in cases of non-payment is often unclear. Is it the agent who should have seen that the customer was not creditworthy, or the call center which failed to motivate the customer to pay? Customers have no dedicated point of contact other than the local sales agent, who may not always be available to offer after-sales service.

Call center

Most PAYGO 1.0 companies have large call centers. Call-center employees typically receive lists of customers to contact, and their performance (and bonus) is measured by the amount their assigned customers pay.

PAYGO 1.0: KEY CHALLENGES

High default rates

The lack of credit screening is the main reason why PAYGO companies perform worse than other credit providers such as microfinance institutions. Once a customer is overfinanced, it is hard to get the customer to pay, with or without a call center. Despite the low collection rates, PAYGO 1.0 companies are hesitant to tighten their credit screening, fearing that doing so will affect their ability to sell and their competitive position.

Limited accountability for failure

PAYGO 1.0 companies typically do not have a single point of accountability for customer care. If customers are unsatisfied, the call-center employee may refer them to the sales agents, and vice-versa. In the absence of accountability, few opportunities are available for learning and improvement, and frustration and distrust can build.

Low customer loyalty

If customers receive little attention and cannot build a personal relationship with the company, they are less likely to refer acquaintances or upgrade their products. Customers easily move to the next provider if offered a better deal.

PAYGO 2.0: WHAT'S NEW

Clear separation of duties

Sales agents of PAYGO 2.0 companies focus on sales and collect initial credit-screening data. The business will analyze to determine credit risk. Customer-care officers verify the data and these officers are solely responsible for the credit assessment. Sales agents may further support the customer-care officer with field duties (by visiting unreachable customers or for repossessions). The sales agent is responsible for giving customers accurate product details, educating them about the terms of sale, and ensuring the integrity of customers' data.

Upfront credit screening

Once the customer has decided to purchase a product, the agent presents the customer to the customer-care officer. This officer contacts the customer and goes through a questionnaire to assess the willingness and ability to repay. A credit-scoring tool can help assess a customer's risk profile and calculate if the customer's income is sufficient to pay for the product. Once the customer-care officer approves the sale and receives the down payment, the company can install the product.

Consistent and proactive credit monitoring

Ideally, the customer-care officer assessing and approving the loan should also assist the same client and keep track of payments. Assigning credit-screening and after-service responsibilities to a single person per client improves accountability. Besides, the cCustomers can then develop their relationship with the company through the customer-care officer. This officer also monitors payment trends to minimize defaults and maintain high collection rates.

Illustrative example

A PAYGO company transitioning to the 2.0 model debated how to refer to its customers. "Customers are people buying something, especially from a shop. Clients are people that receive a service from a professional person. Should we continue to talk about customers?" Because the business focused on customer service as much as on selling products, the company decided to adopt the term "clients."

*This learning paper continues to use "customer."

PAYGO 2.0: BENEFITS

High collection rates

Establishing a dedicated customer-care team to screen and keep track of customers will increase collection rates and reduce the funding needs of the company, accelerating the journey to financial sustainability.

Customer satisfaction and loyalty lead to higher sales

Avoiding overfinancing and offering a more personal approach to customer care has proven to increase customer satisfaction, resulting in more loyal customers buying upgrades and referring new customers. A strong business reputation, a culture that treats staff as responsible individuals, and policies that aim to keep customers happy aid staff retention and the company's value proposition.

Learning and improvement enhances productivity

PAYGO 2.0 companies collect data to learn and improve their credit screening, among other activities. A single point of accountability for customer care stimulates learning; people see and learn from their own mistakes. As proven in microfinance, organizations that learn from their mistakes (and every customer default is a mistake from which companies can learn) become the most intelligent in selecting customers, managing credit portfolios, and succeeding in their market.

Questions to consider

Should we use the term "credit team" or customer-care" team?

Customer care is broader than credit; it underscores that the service is about protecting the customer rather than the company. Customers prefer to feel that the company respects their wellbeing.

What is the difference between a call center and a customer-care team?

A call-center employee is tasked to phone customers and to receive calls. PAYGO 1.0 companies assess call-center staff on the number of calls made or the amount of cash they help to bring in from their contacts. Customer-care officers also make phone calls, but they are responsible for a portfolio of customers and their satisfaction with the company. The call-center agent deals with tasks, whereas customer-care officers carry a responsibility to foster loyal customers.

What happens to a call center in the PAYGO 2.0 model?

PAYGO 2.0 companies need only a small call center for incoming calls and promotions, although promotions can also be channeled through a customer-care department. Establishing a customer-care department is a process that can take longer than a year.

Customer’s credit screening

PAYGO 2.0 have credit-risk management processes in place that allow them to achieve a high-quality portfolio. Credit screening is the first step of customer care, as it is a proven way to avoid overfinancing customers.

PAYGO 1.0: HOW IT WORKS

The first step in the credit cycle is for sales agents to identify potential customers. At PAYGO 1.0 companies, credit screening is usually oriented to closing a sale, meaning the sales agent focuses on customers’ interest in the product and their ability to afford a deposit. Sales agents are not responsible for screening and collecting data on customers through a standardized method.

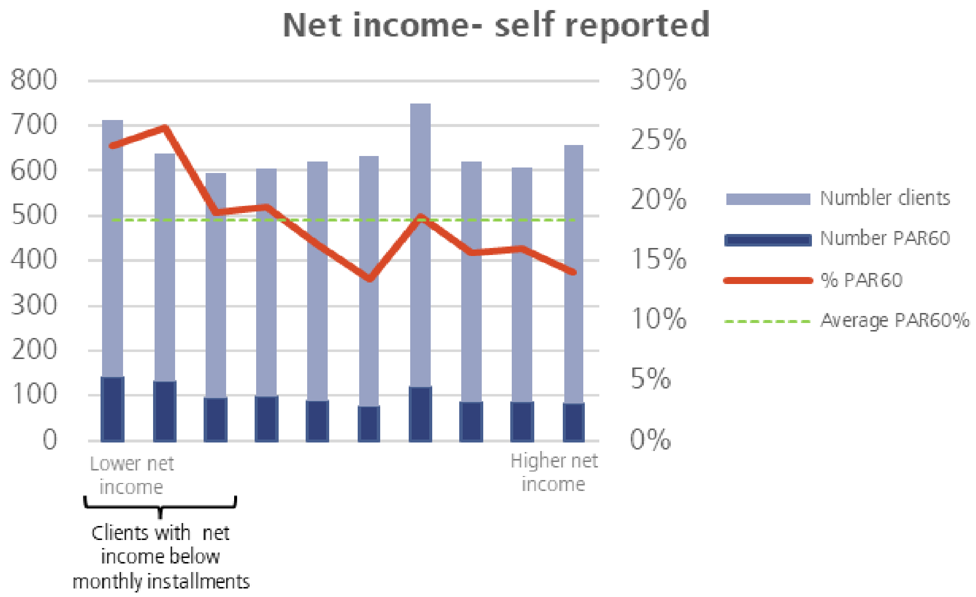
PAYGO 1.0 companies aim to serve different type of customers with various sources of income. Some of these customers do not earn enough to pay for the systems acquired. PAYGO 1.0 companies that prioritize selling a certain number of systems may not adequately weigh a customer’s capacity to afford a product, which exposes the company to credit risk.

PAYGO 1.0 companies decide to extend credit by following the experience of their staff.

PAYGO 1.0: KEY CHALLENGES

A high-risk portfolio

The likelihood of customers to be in arrears or not use their systems is higher when their net income[4] is less than their instalment amount. The figure below is a snapshot of an actual PAYGO company’s credit portfolio. It shows that customers with a net income less than the monthly instalment amount present a significantly higher risk of non-payment than customers that have larger amounts of net income.



[4] Monthly disposable funds (household income after all regular household expenses).

Increased risk for the customer

Customers with a lower net income may find it difficult to cover expenses for food, education, and healthcare after paying for their PAYGO system. Overfinancing goes against the mission of social enterprises that seek to generate social benefit.

The credit process depends on individual staff members

Without a standard credit-scoring procedure, the PAYGO company will depend on a small number of staff to approve or deny credit for a customer. If staff turnover is high, the PAYGO company will find itself with skills gaps and a credit process that is subjective and reliant on individuals' work experience.

Loss of customers' datapoints

A structured credit screening is an opportunity to collect information that might predict a customer's credit risk. If credit screening and approval depends too heavily on the knowledge of one or a few individuals, their departure can mean that the company also loses valuable data.

PAYGO 2.0: WHAT'S NEW

Collect an initial dataset that suggests the customer's risk profile

The sales agent should collect the first set of data in a structured format, preferably avoiding free-answer possibilities, but providing multiple options (dropdowns, checklists) or pre-defined ranges (e.g., a calendar on which to select dates). The sales agent stores the information on the company's database and further assessments (such as risk correlations) can be performed once enough data is available.

To calculate if a PAYGO client can afford a product, request self-reported estimates of their cash income and expenses. Affordability assessments should factor:

1. The main source of income (its frequency and amount)
2. The secondary source of income, if applicable, and its frequency and amount
3. Monthly expenses

The figure is an example of an affordability assessment based on a client's self-reported cash inflow and outflow.

Capacity of affordability of a loan - Questions		Calculation
What is your main source of income that will be used to pay EEA's product?	Pension	
What is the frequency of your main source of income?	Monthly	
What is your average income Pension?	LCY 4,000	LCY 4,000
Other Sources of Income of the MSME?	Pension	
What is the frequency of your other source of income?	Monthly	
What is your average income Monthly?	LCY 3,000	LCY 3,000
Total monthly expenses amount?	LCY 200	LCY 200
Currently, What is the sum of loan(s) amount outstanding?	LCY 500	LCY 50
Available		**LCY 6,750**
% monthly available income (30% seasonal -50% others)		**LCY 3,375**

Score customers' creditworthiness using self-reported information and historical repayment data

Using the first set of data collected by a sales agent, the customer-care team will generate a second set of qualitative data from which a scoring model is developed. This second set of data comprises affordability variables, demographic variables, assets ownership, psychometric variables, previous payment behavior, and statements from a credit bureau.

Calculate risk based on customers' probability to default

A credit score should grade customers according to how likely they are to default on their repayment, with a higher probability presenting higher credit risk. With these estimates on hand, companies can calculate the value of receivables they can take on according to how much risk their credit policy allows.

	% clients accepted/rejected (cumulative number obs/total obs)	Cumulative share in PAR60 (cumulative PAR60 clients/total PAR60 clients)
5th decile (Highest Risk)	100%	100%
4th decile	80%	64%
3rd decile	60%	39%
2nd decile	40%	22%
1st decile (Lowest risk)	20%	9%

Score cut off

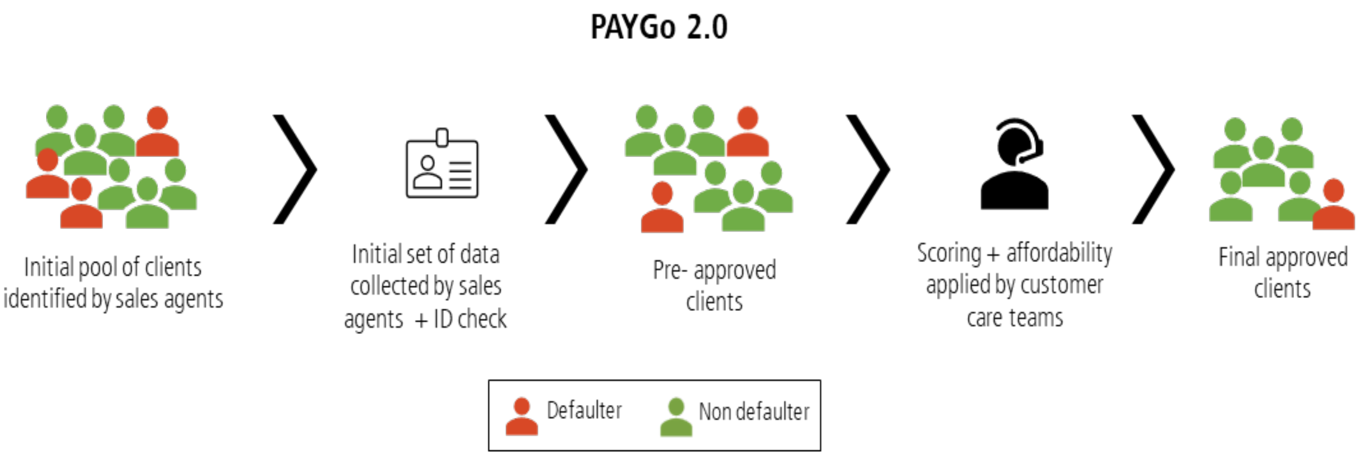
Clients deferred: 20% of total applicants

Risk avoided: 36% of total risk

Disburse or defer credit

We recommend that consumer financing take up no more than 30 percent of net income for customers with seasonal incomes, and no more than 50 percent of net income for other types of customers with a more stable main source of income.

In deciding to which customers to extend credit, PAYGO 2.0 companies combine weight this affordability assessment against the company's credit-score cutoff. The affordability thresholds and credit-score cutoff should be specified in the company's lending.



PAYGO 2.0 also have controls to identify cases of non-compliance, such as when customers are overfinanced or when too many customers' incomes coincide exactly with the affordability threshold.

PAYGO 2.0: BENEFITS

Increased customer satisfaction

Clients that can afford the systems should have enough financial headroom to meet their instalments, increasing their satisfaction in using the systems and enhancing their perception of the product's value.

Enhanced operational efficiency with clear separation of duties

Customer-care teams will use their time more efficiently when customers' financial are is easily accessible. By having the affordability assessment and scoring tool on hand, customer-care officers not only can reach decisions quickly, but also refine the screening and approval process with each loan cycle

Improved portfolio quality

Better screening of customers will be reflected in a higher-quality portfolio. When credit scoring performs well and can predict credit risk, the company's portfolio becomes more bankable.

Questions to consider

How should we develop a credit-scoring system?

The choice of the solution depends on the quality and quantity of the company's data generated by the company (rule of thumb >5,000 with more than 6 months on books, but the more the better). Only qualitative databases with enough observations and data points from initial and follow-up data collections can allow a company to develop statistical models that predict client's probability to default.

What can we do if we are only starting operations and do not have the 5,000 observations?

Companies that are starting operations should define their data-collection strategy (discussed in the next section) and develop criteria to ensure that the data is of a high quality.

Importance of qualitative databases

The three components of the credit-screening process covered in the previous section—the identity questionnaire, affordability assessment, and credit scoring—will give essential insight into the company's credit portfolio. Yet PAYGO 2.0 companies know that managing credit risk is not only about collecting data, but also about ensuring that this data is of high quality.

PAYGO 1.0: HOW IT WORKS

If the company collects data too hastily and without a standard format, variation in how the information is presented or mistakes can make the data difficult to sort.

The example below shows data collected for the same customer with different quality standards.

Datapoint collected	Date of birth	Town	Number of household members	Monthly income in local currency (LCY)	Main source of income (activity)
Client A –data collection with quality controls	1975/12/17	Nairobi	8	100,000	Agriculture
Client A- some quality controls on data collection	17th December 1975	Nairobi	8	100,000 LCY	Corn production
Client A – no controls on data collection	47 years	Nairobii	Eight with one baby	1000000000000 LCY	Producing and selling corn

PAYGO 1.0: KEY CHALLENGES

Loss of data

In the example above, the information entered without quality control is not optimized so that it can be searched and categorized easily, putting the information at risk of becoming lost. Lost data can translate into financial loss, because the company cannot use its computer systems to their full potential to analyze the information.

PAYGO 2.0: WHAT'S NEW

Because credit is a data-driven activity, databases are a key resource for PAYGO 2.0 companies. These companies collect data during the main phases of the credit cycle.

Pre-disbursement

1. The sales agent collects the initial set of data.
2. Customer-care officers gather financial information to assess if the customer can afford the product and to assign the customer a credit score.

Post-disbursement

3. The company monitors how the customer uses the product.
4. Customers' repayment performance is recorded each month.

A data dictionary that describes each variable should accompany the database.

PAYGO 2.0: BENEFITS

Customer and portfolio insight

PAYGO 2.0 companies use data to understand who their customers are, the risk that the credit portfolio presents to the company, how customers use their products, and how consistently customers pay instalments. By understanding these aspects, the company can assess how effective its business model is and optimize its operations.

Question to consider

Can a PAYGO company manage all this data?

Most of the companies we assessed companies had information-technology systems capable to record and analyze complex datasets and visualize them in dashboards and as trends.

Credit monitoring

PAYGO 1.0 PAYGO 2.0 companies have different ways to monitor their credit portfolios. A customer-centric approach proved to result in not only better repayments, but also more customer loyalty and increased sales.

PAYGO 1.0: HOW IT WORKS

Call centers are reactive rather than proactive

Most PAYGO 1.0 companies have large call centers to communicate with customers. Call-center employees typically receive lists of late payers, and call-center staff performance is measured and rewarded according to the number of late payers who honor their instalments.

Apart from a welcome call (after installation) and promotional activities, little proactive customer engagement occurs. Instead, the company is reactive; it responds only if a customer files a service request or misses a payment. Some PAYGO 1.0 companies also do not give their customers adequate notice when their solar-energy token is about to expire.

Lack of active relationship with the customer

Most sales agents do not maintain relationships with their customers unless they generate regular referrals.

PAYGO 1.0: KEY CHALLENGES

Lower customer satisfaction and brand loyalty

Customers who pay on time do not feel a strong bond with the company and will be less loyal to the brand. Customers who have payment issues generally feel pressured by the call center and anxious about repossession.

Customers do not pay, despite the frequent reminders

There is limited evidence that call centers are effective in increasing repayments. A major reason for overdue payment is over-financing: Customers without the necessary funds cannot repay their loan, with or without the call center.

PAYGO 2.0: WHAT'S NEW

A single point of accountability

An important change from the PAYGO 1.0 model is that customer-care officers in PAYGO 2.0 companies have fixed, regional portfolios. These officers manage their customers from end-to-end: from the initial screening to the final payment. Because customers appreciate dealing with a person with whom they are familiar, officers have an incentive to take customer screening seriously and to learn from missteps.

Proactive customer management

PAYGO 2.0 companies do not wait for customers to report service cases or stop payments. They contact their on-time payers to ensure all is well and to thank them for paying on time. Clients receive a first monitoring call shortly after the installation to ensure everything is working well and to check, once more, that the client understands the credit and service terms. Every six months, all clients receive a call. This proactive approach increases customer loyalty, with customers prioritizing payments to PAYGO 2.0 companies over competing expenditures. Customer engagement also reduces the risk of customers dropping out as soon as problems arise.

Early-warning dashboards for credit defaults

Customer-care managers at PAYGO 2.0 companies have two gauges on their dashboard. The first measures the quality of customer screening by comparing the payment behavior of cohorts of customers during the first three months after the sale. Even customers who pay a few days late are a sign of inadequate credit screening. By comparing their team's portfolios, managers can see who deserves a compliment and who needs support.

The second gauge measures the quality of credit monitoring. This can be measured by looking at the recent trend in collection rates. The relative increase or decrease in monthly collections of customer cohorts reflects the quality of credit monitoring of the different team members. Both gauges serve as early warning signals, allowing early intervention and preventing financial loss.

Repossession as a last resort

PAYGO 1.0 companies typically repossess systems after 60 to 90 days of non-payment, regardless of the reason for non-payment or the customer's situation. PAYGO 2.0 companies listen to their customer and then choose the best solution. Normally, the best solution for the customer is also a better solution for the company. This includes selling and reinstalling the system to a neighbor or family member (which requires no refurbishment costs) or restructuring the credit by allowing the customer to pay a lump sum during a harvest season.

Illustrative example

An off-grid company did not use PAYGO technology. All customers, including defaulters, had a working system. The rationale was that customers should not be punished for lapses in the company's credit management. Even though this approach seemed risky, the company had collection rates of more than 90 percent. The company's success relied on high-quality credit assessments and active customer management. Customers enjoyed the service and did not want to spoil their track record and relationship with the company. Customers aimed to avoid repossessions precisely because their system was still in use. Even a company without PAYGO technology can still be a PAYGO 2.0 company.

PAYGO 2.0: BENEFITS

High collection rates

Personal, proactive customer care results in better payments. This is especially the case when the customer-care officer who approved the loan is also responsible for managing the same customer.

Customers are more satisfied and loyal

Happier customers are more loyal and continue to buy from the same company, often introducing their friends to the business.

Constant learning and improvement

By monitoring the payment performance of customer cohorts, customer-care managers can constantly help the team members to learn and improve their credit-management approaches. When the performance of the credit portfolio is transparent, customer-care officers are set up for success and can grow professionally.

Questions to consider

Is a personalized approach not too expensive? How many customers can a customer-care officer handle?

Personalized, proactive customer management may seem to cost more time and money per customer. Initially, this approach is expensive. However, as repayment performance reaches a high level, for the company does not need to follow up on customers as frequently. One customer-care officer can handle from 600 to 1,200 customers, depending on the size of the systems sold (and assuming they are also responsible for customer screening).

Should we not have customer-care officers in the field?

The distance to the customer matters. Customers feel pressured if they know the person calling them is nearby. Pressure is unnecessary; it assumes that customers have the cash and are only unwilling to pay. A decentralized team can also be more difficult to manage. Nevertheless, customer-care officers should still frequently visit their region and customers.

Can call-center staff transition to customer-care officers?

The role of customer-care officer is more analytical, and some call-center staff might find it challenging to be responsible for a portfolio of customers. Other call-center employees will gladly accept the opportunity if given the chance. Our experience with off-grid companies shows that people are willing to try new roles, and may find working with customers in person appealing.

Data analytics on employee performance

PAYGO 1.0 and PAYGO 2.0 companies differ in how they manage and improve their customer-care teams. Metrics help teams to identify trends quickly to mitigate underperformance.

PAYGO 1.0: HOW IT WORKS

Customer-facing employees in PAYGO 1.0 companies typically have simple, short-term performance indicators. Sales agents are rated and rewarded based on the number of their monthly sales. Some companies' dashboards also show the payment history of their portfolios, and sometimes sales agents can earn a portfolio bonus.

Call-center employees, on the other hand, are judged by the cash collections from customer portfolios assigned to them every week or month. Some PAYGO 1.0 companies also measure input activities, such as the number and duration of calls. For inbound calls, which often involve technical issues, the call-center team opens service tickets, after which the technical team or branches follow up.

PAYGO 1.0: KEY CHALLENGES

Although PAYGO 1.0 companies' dashboards are functional, they can do more to give managers insights into why trends occur. The information that the dashboards show should also help staff understand and improve their performance.

Illustrative example

A PAYGO company designed a portfolio bonus for its sales agents. It became quite complex and many agents did not understand or value it. The PAYGO company was struggling with agent turnover; many of the best, experienced agents were moving to competitors. The PAYGO company found that the portfolio bonus put more experienced agents at a disadvantage because their customers' loans were more mature and their portfolios, covering a longer period of time, showed more delinquency. To retain its experienced staff, the PAYGO company abandoned the portfolio bonus.

PAYGO 2.0: WHAT'S NEW

Measuring the quality of credit assessments

The first metric that customer-care managers of PAYGO 2.0 companies use is the payment behavior of the most recent cohort of approved customers. Early repayment performance suggests the quality of recent credit assessments. The metric compares the repayment rate of recent customer cohorts in their first, second, and third month after installation.

Below is an example of a dashboard at a PAYGO 2.0 company which compares the repayment rate of three customer-care officers' portfolios. The bars represent the collection rates (the amount actually paid versus the amount that should have been paid cumulatively). Each month (January, February, and March) represents a cohort of customers. The January cohort have made three monthly payments.

Payment behaviour most recent clients cohorts			
	Tim	John	Mary
January cohort - 1st Instalment	95%	86%	81%
January cohort - 2nd Instalment	93%	84%	80%
January cohort - 3rd Instalment	91%	83%	78%
February cohort - 1st Instalment	93%	89%	92%
February cohort - 2nd Instalment	91%	88%	90%
March cohort - 1st Instalment	90%	92%	83%

The customer-care manager sees that Tim, although on average having the highest score for his first-month payments, needs support—his performance is declining. John, on the other hand, has recently done better credit assessments and overtook Tim in March. The manager should understand what is behind John's improvement. Likewise, the manager should look into why Mary's portfolio is performing inconsistently.

Assessing the repayment behavior of each customer cohort is useful not only to measure financial performance and credit risk, but also indicates staff performance and their professional needs.

Illustrative example

An early-stage PAYGO 2.0 company measured the payment behavior of customers during the first month. Sales agents earned commission once the customer had made the first payment. A penalty applied for late payers. Almost all customers paid the first instalment on time, but sales agents neglected to tell their customers that their payment obligation went further than the first month. In the second month, delinquency rates rocketed.

Measuring the quality of credit management

Customer-care managers at PAYGO 2.0 also need to measure their teams' credit-monitoring performance. The best metric is to analyze the recent trend in collection rates for all customer cohorts in each customer-care officer's portfolio. The collection rate is the total a customer has paid versus the cumulative amount a customer should have paid (a metric also known as "paid-versus-plan"). This quality of credit management should be assessed together with the quality of credit assessments (described in "The Importance of High-quality Databases" above).

By looking at the average monthly collection rates in the last three months, managers can ignore performance issues in the distant past which are no longer relevant. Customer-care officers often manage customers whom they have inherited and may not personally have screened all their customers.

Monthly client collection drop rates			
	Tim	John	Mary
M-3	2.50%	2.20%	1.30%
M-2	2.10%	2.40%	3.40%
M-1	1.90%	2.80%	1.10%

The customer-care manager sees that Tim has improved his credit-monitoring performance in the past three months. Although the collection rate was 2.5 percent less three months ago (M-3), last month (M-1) the decrease was only 1.9 percent.

John, by contrast, is seeing larger decreases in his collection rate. Last month (M-1), his collection rate dropped by 2.8 percent since the month before. He is not only performing worse than his peers, but also worse than himself compared to the previous two months.

Mary, who dedicated more time to credit screening, has been performing well in the past month (M-1), when her collection rate decreased only by 1.1 percent.

PAYGO 2.0: BENEFITS

Motivated staff who learn

Employees appreciate it when their employers acknowledge their good work and benefit from support in cases of underperformance. By monitoring changes in customer-care officers' monthly collection rates in recent months, managers can identify positive performance trends and assist employees if collection rates begin to decrease.

Positive customer attitude

PAYGO 2.0 companies are committed to serve customers for the long term. They build a relationship with their customers, realizing that the success of this relationship depends on the quality of the credit screening. PAYGO 2.0 companies avoid overfinancing and overpromising, and try to ensure that customers have a single point of contact for after-sales service. Customer-care officers should realize that "chasing customers" is not the right way, but that building strong relationships with customers will gradually improve customers' loyalty, payments, and sales.

Questions to consider

Should PAYGO companies always expect a decrease in collection rates?

Most companies find that their collection rates for customer cohorts decrease, often linearly. But good credit management and seasonal income patterns can mean that collection rates can increase.

Should we link financial incentives to customer-care officers' collection rates?

Our experience is that companies should wait until their credit-portfolio dashboards are settled and performance becomes predictable before introducing incentives for staff. Even then, introducing financial incentives might not always add value. Introducing individual bonuses does not always help to create a healthy culture in which people help each other and take time to learn and improve.

Data analytics on portfolio performance

The customer-care dashboards from the previous chapter measure the performance of the customer-care team. But for good risk management, the company's management must also look at other trends that affect portfolio risk. PAYGO 2.0 executives should inform their business decisions with a range of metrics such as collection rate, portfolio-at-risk (per product, branch, or vintage), and customer-turnover rates. This section focuses on two additional metrics that PAYGO companies can consider in adopting a PAYGO 2.0 business model.

Scoring performance

PAYGO 1.0: HOW IT WORKS

PAYGO 1.0 companies usually do not have a credit-scoring methodology in place. Credit scoring or rating typically PAYGO businesses' performance with each loan cycle assessed. The more datapoints are captured, the higher the probability of identifying datapoints (or combinations thereof) that predict repayment behavior. However, a scoring/rating methodology might underperform if:

- Changes in procedures and policies attract a different type of customer than the previous scoring model did.
- The company uses a scoring model in a country other than the one in which the initial scoring model was designed.
- The scoring model is applied to a new product (which might perform differently than the product for which the scoring system was initially created).

As PAYGO companies enter new markets and introduce products, they should consider if their credit-scoring approach is appropriate for these new sales channels.

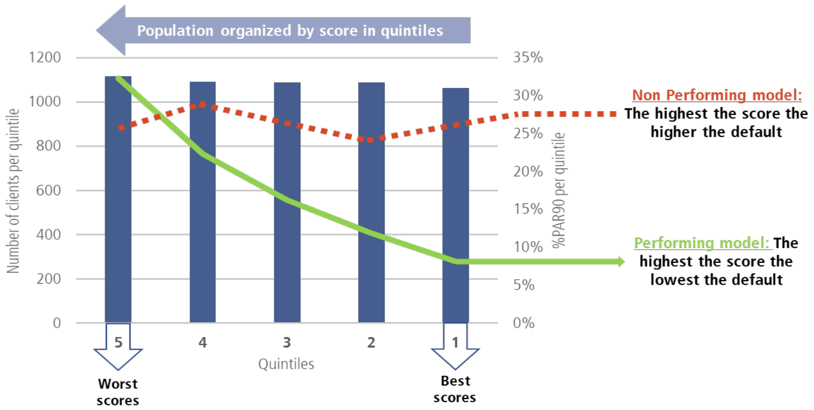
PAYGO 1.0: KEY CHALLENGES

The scoring model underperforms

If a company does not assess how successful its credit-scoring systems are in predicting credit risk, it may not recognize opportunities to update the scoring approach for new markets and products. To achieve a higher-quality credit portfolio, PAYGO companies should ensure that their scoring system evolves with the business.

PAYGO 2.0: WHAT'S NEW

The performance of scoring/rating solutions is based on how accurately it organizes customers by the level of risk. Credit scoring should predict default rates according to the level of risk. This will result in a descending default trend, shown by the green line below.



The methodology of the scoring assessment should be automated by the company's data-analytic departments. The company should establish an action plan to recalibrate the scoring system if it underperforms. Once the scoring system is updated, the company should specify any new goals for acceptance and rejection rates in its risk-management policy.

PAYGO 2.0: BENEFITS

Improved portfolio quality

The better the scoring model predicts default rates, the more easily the company can optimize its acceptance or rejection rate to the quality of the portfolio.

Question to consider
What are the minimum requirements to assess the performance of a credit-scoring model? This assessment requires a dataset of customers that includes a minimum of 100 of observations, with the delay of payment used to develop the model (i.e., PAR60/PAR90/PAR180). The observations should have been scored by a single model and have more than six months on books. Companies may have implemented or streamlined different scoring models. The business should assess the performance of a single model at a time and not mix different scoring models in one assessment.

International Financial Reporting Standard (IFRS) 9 provisioning

PAYGO 1.0: HOW IT WORKS

Provisioning is an accounting exercise that distributes the cost of actual credit losses over time, so loan losses are absorbed through the income statement. The standard reference framework on provisions for regulated financial institutions is called IFRS 9. The expected loss (EL) on a loan is the basis for the bad debt provision, and is calculated as the probability of default (PD) times the exposure at default (EAD) times the loss given default (LGD): EL=PD*EAD*LGD.

Typically, PAYGO companies are not regulated financial institutions, and are not expected to comply fully with IFRS 9.

PAYGO 1.0: KEY CHALLENGES

Probability of default

Some PAYGO companies use flexible financing terms which allow a borrower to repay a flat loan amount in flexible instalments. The flat amount includes the price of the asset and interest. Units are deactivated automatically in case of nonpayment, but arrears do not accumulate. Once the customers pay, the unit is activated and its arrears status is set to zero days.

Therefore, for the PAYGO sector, the expected loss and empirical three-stage impairment approach used for IFRS 9 provisioning cannot be limited to the customer's number of days in arrears , which is the case for a normal fixed-instalment loan in the microfinance sector. How "bad" credit is defined for PAYGO companies should be informed by historical portfolio performance, which will determine how a company defines a default according to its unique business model. For example, a PAYGO company can decide that 90 percent of its customers who have been paying every 60 days for the past six months are likely to stop paying after month six.

Loss given default (LGD)

LGD is the percentage of exposure at default (EAD) that a company considers lost once a default has occurred. It corresponds to 1 minus the ratio of the discounted cashflows after the default and the outstanding exposure at default.

For LGD calculations, post-default cash that flows from recoveries must be discounted back to the time of default at the original internal rate of return of the defaulted contract. Recoveries include the amount that can be recovered by collecting a collateralized asset (such as a PAYGO-enabled solar system(.

In calculating their IFRS 9 provisioning, PAYGO 1.0 companies do not calculate the amount of money they recover when repossessing a product or discount their cash flows.

PAYGO 2.0: WHAT'S NEW

Complies with IFRS9 empirical three-stage impairment approach

IFRS 9 requires "general" provision for the initial expected loss and an empirical three-stage impairment approach. The three stages differentiate provisioning according to the asset's level of risk (low, medium, or high). PAYG0 2.0 companies can implement this methodology if they have strong qualitative databases for portfolio performance and successful credit-scoring models.

The empirical three-stage impairment approach adapted to the company's presents a significant advantage over a more standardized provisioning methodology.

Data analytics show the effect of repossession on provisioning and discounted cash flows

The LGD calculation is done on a larger time horizon for every single credit. The PAYGO company should automate these analytics, because every month that passes implies a change on the LGD of a credit.

PAYGO 2.0: BENEFITS

Adheres to international reporting standards

Lenders applying the empirical three-stage impairment approach will improve their provisioning methodologies and help to build a stronger and more sustainable PAYGO sector.

Product profitability

The long-term sustainability of a PAYGO company is based largely on how profitable its business model is. A credit model will not be profitable when the interest rate charged does not cover the cost of risk, operations, and financing. PAYGO 2.0 companies have a strong analytical capacity and track these real costs versus budgeted costs. Executives decide how to price products and enhance operations according to data analytics.

PAYGO 1.0: HOW IT WORKS

PAYGO 1.0 companies design highly competitive products and processes that respond to the needs of a market. PAYGO 1.0 companies assign staff and sales approaches to various products, but do not calculate credit risk for each product.

PAYGO 1.0: KEY CHALLENGES

Products' financial performance remains unknown

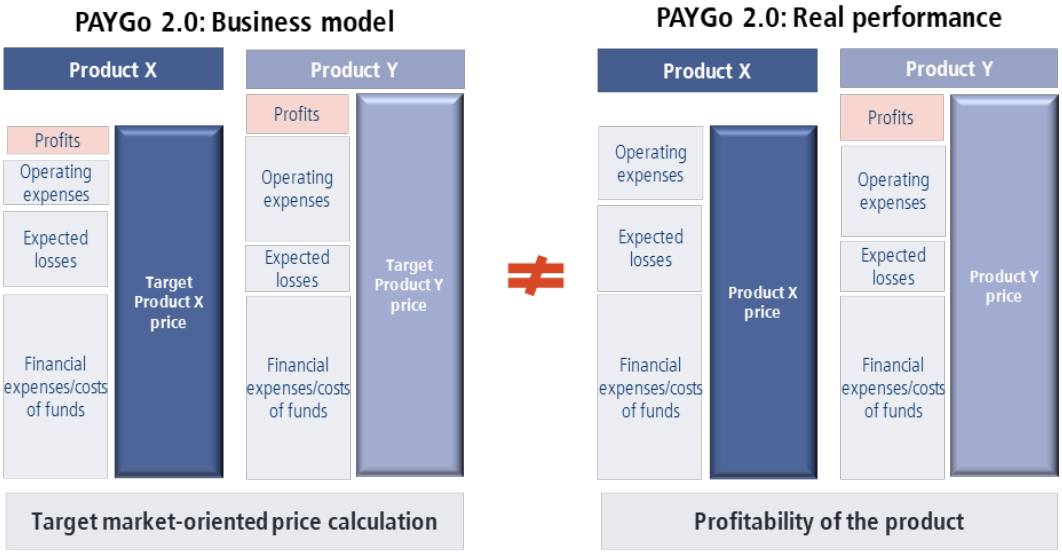
Even when PAYGO 1.0 companies are profitable, credit risk (the probability of default and operational costs) might affect their profits. Factoring credit risk when assessing how profitable each product is can reveal that specific products are unprofitable or that one product is cross-subsidizing another.

PAYGO 2.0: WHAT'S NEW

PAYGO companies' products appeal to different customers:

- A customer acquiring product X, a small system, might go through a light screening process that makes the acquisition of the product easier and faster.
- A customer acquiring product Y—a larger, more complex system—will experience a more in-depth screening in which specialized staff assess how the system can be installed.

Every borrower should pay for the specific share of expected loss and operational costs for which the product was designed. PAYGO 2.0 companies have automated analytics calculating the expected loss and operational costs per product. PAYGO 2.0 companies assess the real profitability of the portfolio and products against budgeted amounts.



Based on the results of these profitability assessments, the management of the company can decide to adjust acceptance rates, restructure business activities, or reprice products.

PAYGO 2.0: BENEFITS

Business models are more sustainable

Identifying how profitable a product is allows the company's executives to optimize pricing, sales approaches, risk targets, and discontinue unprofitable products.

Practical questions/answers to start your path towards PAYGO 2.0

This section answers questions that are likely to arise as a company adopts a PAYGO 2.0 business model.

1. **What steps should I take to transition to PAYGO 2.0?**

   Cultural and organizational transformation is at the heart of PAYGO 2.0. Once every member of the staff has internalized that protecting clients is a priority for the company and that performance on all levels is assessed accordingly, the company can more easily adopt tools and dashboards (for data collection, affordability assessments, and credit scores) to implement a PAYGO 2.0 business model. Organizational transformation takes time. The company should give its personnel time to adapt if it wants the PAYGO 2.0 culture to last.

   Recommended steps:

   Step 1: The first step takes place in the board room. The company's executives should decide how to prioritize the transition to PAYGO 2.0. If the priority is high (i.e., CEO will spend at least one day a week to review the business model), the next step is to begin involving staff and sales agents. Change management aims to build the right culture and organization, and involves awareness campaigns, training, and assessing the company's values.

   Step 2: Once the company's management has committed to PAYGO 2.0, and personnel have been informed accordingly, the company should update its policies and information-technology systems. The revised policies and procedures should stipulate the new credit-screening and -monitoring practices, such as those described in this learning paper.

   Step 3: Companies can either pilot the PAYGO 2.0 model at one of its branches (and deploy it more widely after six months), or adopt it in full from day one. Companies closer to the PAYG0 2.0 model can consider transitioning immediately. PAYGO 1.0 companies can pilot the business model and adopt it more gradually.

   Step 4: Develop digital tools to monitor collection rates and portfolios-at-risk for each product.

   Step 5: Develop and implement additional analytical tools such as product-profitability assessments, credit-score performance assessments, and IFRS 9 compliance.

   Few companies have fully adopted a PAYGO 2.0 business model. Nevertheless, companies with a PAYGO 2.0 ethos are proactive in managing credit risk and prioritize doing so in their culture and organization. PAYGO 2.0 companies take advantage of funding from development-finance institutions to refine their risk-management procedures and to train their personnel. They have gained extensive expertise in managing credit risk, which they embed into the day-to-day activities of staff at all levels.

2. **How much will it cost?**

   The areas that will require the most funds to transition to the PAYGO 2.0 business model are:

   Human resources: Moving from a call-center approach toward a customer-care approach means that employees need to be trained for their new roles. This transition will affect staff productivity. Doing a credit assessment for new clients also takes time, while the effects are not immediately visible. The company will still have to manage the old, underperforming portfolio, perhaps with additional staff. But because improved risk assessments mean that the company can follow up with late payers less frequently, the organization can streamline its customer-care department.

Information technology: PAYGO companies that manage their customers' accounts digitally can easily handle data collection and data analytics. We do not expect that such PAYGO will need to incur significant additional IT costs to enable data collection, credit-scoring, and monitoring dashboards. If the company requires technical assistance to design the screening and monitoring tools, it can consider hiring external staff.

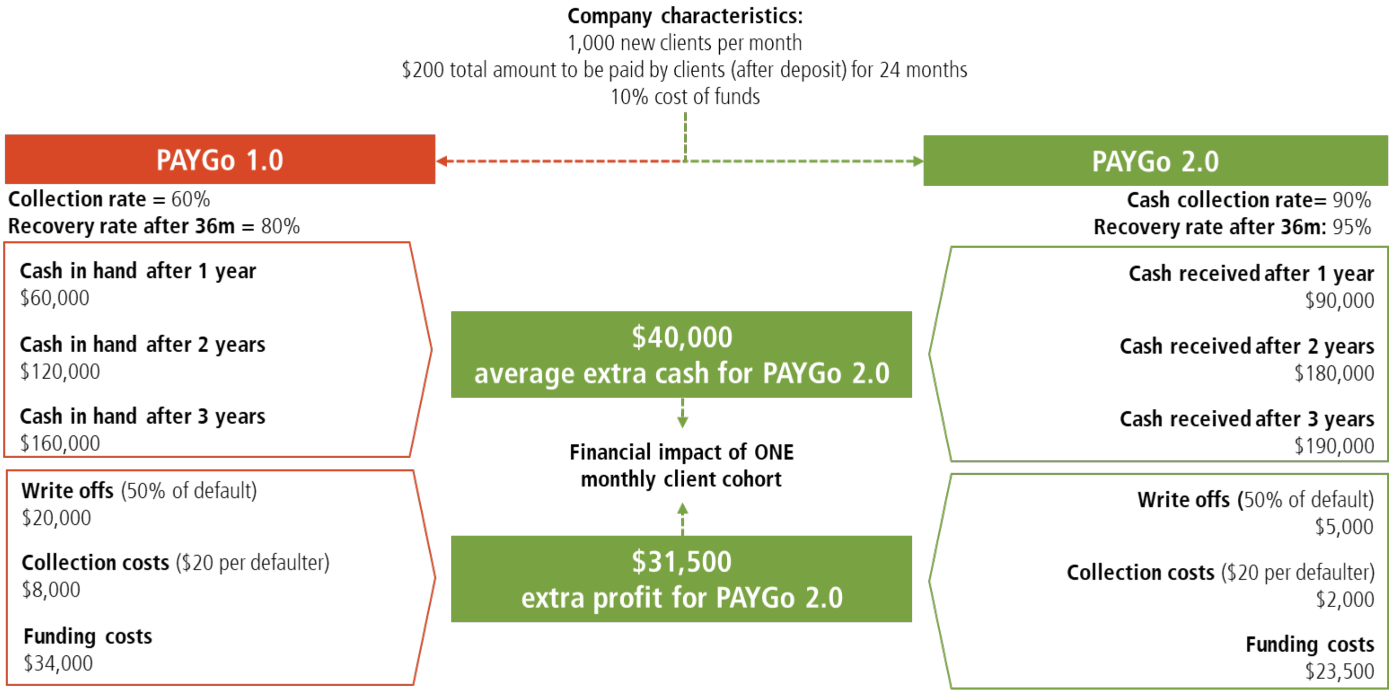
Companies should see moving toward a PAYGO 2.0 as an investment. The company invests in a more sustainable business model: Better risk-management practices enable higher collection rates and a more profitable business. The size of the investment depends on the size of the company. For example, training in credit-risk management for smaller companies can cost up to approximately $10,000, whereas large companies can expect to pay approximately $30,000.

We suggest that PAYGO companies customize their credit-scoring and affordability assessments. Such projects can cost up to $40,000, including the review of the company's credit process.

We have seen that the companies that are closer to the PAYGO 2.0 model take advantage of donors' funding for technical assistance, which enables them to hire service providers to train staff, design tools, and advise their credit procedures.

3. **How much will it cost to remain in a PAYGO 1.0 business model?**

Although investing in sound credit-risk management practices will be an initial expense for the company, not investing in risk management might incur a higher cost. The figure below shows the financial differences between a PAYGO 1.0 and PAYGO 2.0 company.



This example represents a single cohort of customers for one month. If the companies' portfolios were assessed for one year, the benefits of enhanced credit-risk management are significantly larger for PAYGO 2.0 companies.

4. **Do we have to hire new staff, such as a credit-risk manager?**

It is not always necessary to find a new manager externally. One model which we have seen to be effective is that the CEO temporarily accepts the role of credit manager to understand the company's portfolio and identify the best team members to succeed her/him. Other executives in the organization can also be assigned to the role of credit manager.

5. **Who is going to provide the tools and training to my staff?**

   Although training staff in the company's new processes and policies can be completed internally, external specialists can offer capacity-building in good practices for credit-risk management.

   Online training platforms, freelancers, and service providers design and offer training, credit-rating tools, and dashboards. Industry network GOGLA can guide companies to the right professionals.

6. **Will my addressable market decline?**

   To compensate for low collection rates, more PAYGO 1.0 businesses are offering larger products, smartphones, and cash sales. PAYGO 1.0 businesses are expanding their product lines because they think low-income rural households are not bankable. By contrast, rural microfinance institutions and PAYGO 2.0 companies do manage to serve this market profitably. Low-income are bankable provided that businesses have a rigorous credit policy.

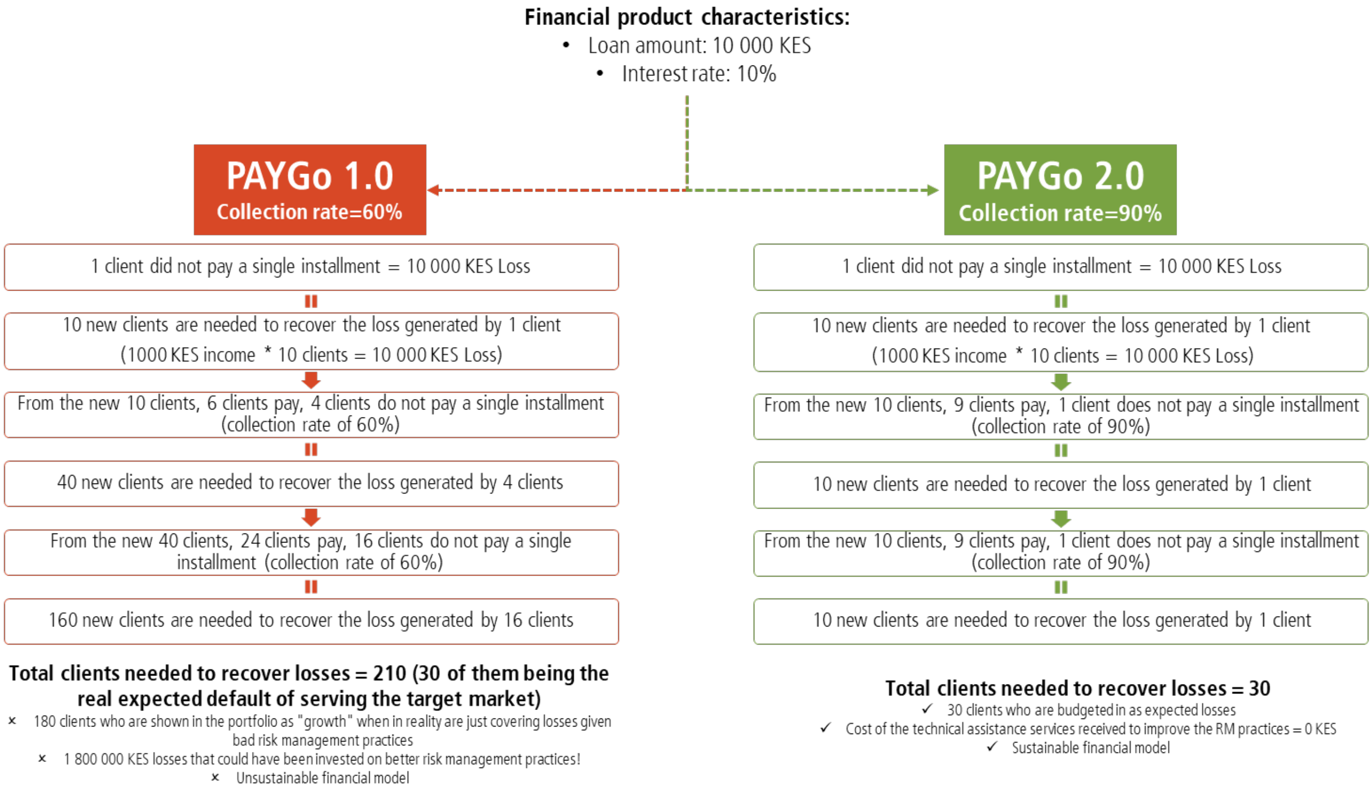
   With innovative credit management, businesses can enlarge their addressable market. Rural microfinance institutions have been granting loans with seasonal repayments for decades. Farmers make higher payments during harvest time, and pay lower instalments in other seasons. By truly understanding the customer's cashflow pattern, and structuring the loan accordingly, PAYGO 2.0 companies can increase their addressable market while reducing credit risk.

7. **Will my sales decrease?**

   By introducing thorough credit scoring, the company will decline customers' credit applications when they cannot afford a product. In the short term, sales may decrease. These lost sales represent customers who were likely not to have repaid their product fully. We noticed that sales agents began to approach more creditworthy clients because they did not want to risk their sales being rejected. Gradually, the number of rejected sales will start to decline. In the longer term (typically after one year), the company will see the benefits of higher customer satisfaction and fewer repossessions, resulting in more sales from referrals and upgrades.

8. **What about the growth of the portfolio? Will slower growth not put off investors?**

   PAYGO companies can become sustainable only through adequate risk-management practices. The figure below shows that growth without risk management (which leads to low collection rates) is unlikely to be sustained.



When thinking about growth, PAYGO companies should be thinking about "healthy growth," which remains within the margin of loss expected for a productor portfolio. Increasing products' prices rather than optimizing the company's credit policy may cause these products to be less competitive.

9. How do I prevent regressing to PAYGO 1.0?

PAYGO 1.0 is a business model focused on sales growth, whereas PAYGO 2.0 prioritizes sustainability by balancing sales and risk management. At the heart of PAYGO 2.0 is a transformed organizational culture. Although companies might be pressured to grow and increase monthly sales, the company's leadership and personnel know that high-quality sales are the objective of its operations and will adhere to the policies that protect clients and the business. Changing a company's business model requires intensive attention from the senior leadership for at least six months.

Investors also play an important role to promote PAYGO 2.0 practices. The more the investors focus on customer care and credit-risk management, the better the chance that companies will embrace the PAYGO 2.0 model for good.