

Separating Receivable Uncertainty from Cash Obligations in MSME Liquidity Planning

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Abstract

Enterprises can report profits and receivables while lacking the cash needed to meet dated obligations. This conceptual article develops a planning framework that distinguishes an accounting claim, evidence supporting an expected payment, and cash already available. The framework combines an obligation calendar, an evidence-based receivable register, alternative receipt scenarios, and action triggers. Selected institutional publications provide contextual foundations, while operational definitions and propositions are developed analytically. No enterprise sample, statistical estimate, or universal payment probability is reported. A hypothetical example demonstrates how an unchanged receivable balance can coexist with a temporary cash gap when settlement moves beyond an obligation date. Three propositions address forecast accuracy, the lead time of cash-gap warnings, and the moderating role of customer concentration. The article proposes transaction-level measures, a prospective panel design, and controls against hindsight in forecast evaluation. Its contribution is a testable distinction between collection rights, expected receipts, and spendable cash. The framework requires validation across business cycles and attention to administrative cost, disputes, customer relationships, and data protection. It should be used as a managerial research proposal, rather than as an accounting impairment model or evidence of liquidity improvement.

Keywords: receivables; liquidity; cash forecasting; MSMEs; collection evidence; payment timing.

1. Introduction

A receivable establishes an enterprise's claim to payment, but does not identify when the money can finance operations. This difference becomes consequential when supplier, payroll, and premises payments have relatively fixed dates. A forecast that treats every invoice due date as a certain receipt may conceal an operational funding gap. The article asks how evidence about collection can be incorporated without giving uncertain estimates the appearance of guaranteed cash.

2. Conceptual method and source boundaries

The analysis separates three stages: an outstanding contractual or accounting claim, an expectation of collection, and a reconciled receipt. This separation is used to define records, construct scenarios, and derive falsifiable propositions. The unit of analysis is a receivable-obligation sequence observed over time, with the enterprise-week providing an additional aggregation level.

IFRS Foundation (2019) supplies educational context for cash-flow reporting. Its distinction among operating, investing, and financing flows helps explain why changes in cash must be examined separately from accrual figures. Historical reporting does not replace a short-term receipt forecast. The proposed evidence categories and action triggers are analytical extensions, rather than requirements established by that source.

OECD (2021) provides context for differences in SME digital capability, while OECD (2024) describes the wider financing environment. These sources are selected purposively. The article is not a systematic literature review and does not claim comprehensive coverage of working-capital theory. No local data are used to assert that late payment has a particular frequency in West Java.

The conceptual procedure identifies the decision object, distinguishes amounts from dates, tests contrasting timing assumptions, and specifies measurements for future validation. Hypothetical examples demonstrate logical consequences under stated conditions. They are not estimates of customer behaviour or evidence that any collection practice causes an improvement.

Concept	Working definition	What it does not establish
Receivable claim	Amount recorded as outstanding	A guaranteed receipt date
Collection expectation	Dated estimate supported by evidence	Cash already available
Available cash	Reconciled funds usable for the stated purpose	Freedom from other commitments
Forecast scenario	Conditional path of receipts and payments	A universal probability of payment

Practical use requires documenting the date on which each estimate was made. Otherwise, a forecast can be rewritten after the event and appear more accurate than the decision maker's actual information allowed.

3. Building the obligation calendar

The obligation calendar records amount, due date, payment purpose, consequence of delay, and any verified room for rescheduling. It should distinguish an agreed payment date from a date that the owner merely hopes to change. An unsigned proposal to extend supplier terms does not provide the same planning basis as an accepted arrangement.

Obligations differ in flexibility. Payroll and critical utilities may require different treatment from a discretionary stock purchase that has not yet been committed. The calendar should therefore separate committed, negotiable, and discretionary payments while preserving the basis for each classification. Negotiability is not an excuse to remove an inconvenient payment from the forecast.

Uncertain expenses also require scenarios. The framework focuses on relatively well-defined obligations, but repairs, variable shipping, and contingent refunds can change the payment path. Known uncertainty should be shown as a range or a separate case. Treating obligations as perfectly certain while scrutinising only receipts would create an asymmetrical forecast.

Available opening cash should exclude amounts reserved or restricted for purposes outside the forecast. When one account supports several business units, the model needs a documented allocation. Double use of the same cash balance across separate planning sheets would understate financing requirements.

Calendar field	Evidence required	Interpretation
Due date	Invoice, contract, or accepted schedule	Date presently requiring action
Amount	Reconciled liability or committed order	Cash required under stated assumptions
Flexibility	Recorded agreement or contractual option	Permitted timing adjustment
Delay consequence	Operational or contractual assessment	Priority for intervention
Payment status	Bank confirmation and reconciliation	Outstanding or completed obligation

The calendar should be refreshed when agreements change. A forecast version preserves what was known before the payment deadline, while the current version supports operational action. Both are needed: the former evaluates forecasting performance and the latter helps the enterprise manage the next decision.

4. Classifying receivables through collection evidence

A receivable register should retain transaction identity, outstanding amount, original due date, disputed items, recent contact, and the latest supporting evidence. The forecast uses this evidence to distinguish collection stages. An oral promise, a documented payment instruction, and a credit appearing in the bank account are different observations.

The proposed categories are operational. Category A covers receipts with relatively strong current supporting evidence; Category B covers receipts dependent on further action or incomplete confirmation; Category C covers disputed or repeatedly delayed receivables. Category names should never be mistaken for statutory credit-quality classes or an accounting expected-loss calculation.

Evidence changes over time. A previously supported date that passes without payment requires reassessment. Stale confirmation should not remain indefinitely in a high-confidence category. Conversely, a disputed invoice may move to a clearer stage when a verified correction is accepted. Classification needs an update date, an accountable recorder, and a reason for change.

Amounts must also be scrutinised. Partial payments, credit notes, returns, and deductions can alter the collectible balance. Forecasting the original invoice after a partial receipt would duplicate the cash expectation. The register should therefore reconcile invoice amount, adjustments, payments, and residual balance before any timing scenario is generated.

Proposed stage	Example of evidence	Forecast treatment
A: supported expectation	Current documented payment confirmation	Use supported date; retain residual uncertainty
B: follow-up dependent	Invoice acknowledged, date still unresolved	Use alternative dates and assigned follow-up
C: disputed or repeatedly delayed	Unresolved deduction or missed commitments	Separate stress case and resolution action
Received	Reconciled bank receipt	Remove collected amount from forecast

The enterprise should calibrate categories against its own history. No probability is assigned universally in this article. A category becomes useful when its meaning is stable enough for users to interpret, and its predictive performance is assessed without silently changing the criteria after observing outcomes.

5. Receipt scenarios and projected cash balances

The base scenario uses receipt dates most supported by current evidence. A delayed scenario shifts material receipts using relevant customer history or stated uncertainty. A stress scenario postpones selected major receipts while retaining obligations that have not been renegotiated. These are conditional paths, not assertions that all customers share the same delay pattern.

Projected cash at date t equals opening available cash plus cumulative forecast receipts minus cumulative forecast payments. Where receipt dates are represented as ranges, the resulting cash path should be shown through multiple cases rather than one precise-looking balance. The minimum projected balance and the first date below an operational threshold are useful summaries.

A forecast period must match the decision. Weekly totals can conceal a shortfall on Monday that is resolved by a receipt on Friday. Enterprises with tightly dated payments may therefore need daily planning around critical periods. Greater granularity has a recording cost, so the horizon and frequency should be proportionate to obligations and receipt uncertainty.

Scenario assumptions should remain coherent. Delaying one large customer payment may also affect future sales or supplier purchasing. The initial model can hold those effects constant for clarity, but should disclose this simplification. A sophisticated-looking forecast is unreliable if it combines mutually inconsistent assumptions about activity and cash.

Scenario	Receipt assumption	Obligation assumption
Base	Best-supported current dates	Current agreed payment schedule
Delayed	Relevant receipts move within justified ranges	Only verified rescheduling included
Stress	Material receipts postponed or reduced	Committed payments retained

An enterprise should record why a receipt was moved and what evidence could restore the earlier date. The scenario is most valuable when it informs a specific action, such as resolving a disputed invoice or reducing an uncommitted purchase, before the cash gap arises. More scenarios are not automatically more useful if managers cannot interpret or maintain them.

6. Hypothetical liquidity-gap illustration

Consider an enterprise with opening available cash of IDR 20 million, a receivable of IDR 25 million, and an obligation of IDR 30 million due in week two. In the base scenario, the receivable arrives in week one. Available cash rises to IDR 45 million and falls to IDR 15 million after payment of the obligation.

In the delayed scenario, the same receivable arrives in week three. The week-two obligation creates a projected cash balance of minus IDR 10 million. The receivable balance has not necessarily changed before collection, but the operational funding requirement has. The gap is caused by timing under the stated assumptions, not by a demonstrated credit loss.

Hypothetical period	Base receipt timing	Delayed receipt timing
Opening cash	IDR 20 million	IDR 20 million
End of week one	IDR 45 million	IDR 20 million
Week-two obligation paid	IDR 15 million	Minus IDR 10 million
Week-three receipt	Already received	IDR 15 million after receipt

The negative projected balance signals that the delayed plan cannot be executed solely with the stated funds. It does not show an actual overdraft or an authorised borrowing arrangement. Potential actions include resolving collection uncertainty, negotiating the obligation with the counterparty, changing an uncommitted purchase, or evaluating available funding on its own merits.

A partial receipt of IDR 15 million before week two would reduce the gap but would not reproduce the full base case. The remaining IDR 10 million must stay in the register with its own evidence and forecast date. Likewise, counting a transfer instruction as cash before bank reconciliation could prematurely remove the warning.

This illustration excludes taxes, other receipts, variable expenses, and restricted funds. Its purpose is to demonstrate the importance of dated cash paths. Real applications need a complete obligation calendar and should test whether omitted transactions materially alter the minimum balance.

7. Action triggers and decision responsibilities

The first proposed trigger is a forecast balance below the minimum amount needed for near-term committed payments. That minimum is derived from actual obligations and operating needs, rather than a universal percentage of sales. The second trigger is evidence becoming stale after a promised payment date passes. The third is a material unresolved dispute that could change amount or timing.

Actions should correspond to the underlying problem. An incorrect invoice calls for correction; an unresolved delivery dispute calls for verification; a missed payment confirmation calls for follow-up. Borrowing does not resolve an underlying billing error and may add financing cost. The action record should therefore distinguish collection work, spending adjustment, payment negotiation, and financing evaluation.

Each trigger needs an owner and a review date. A warning without assigned follow-up provides little operational value. The enterprise should also record the response and its completion, allowing future evaluation to distinguish a good forecast from a good intervention. A cash gap avoided through action is not necessarily a false forecast.

Trigger	Potential action	Evidence of completion
Supported date passes unpaid	Reconfirm with customer	Updated documented date or receipt
Dispute threatens material receipt	Resolve invoice or delivery issue	Accepted correction or agreement
Committed payment exceeds forecast cash	Review purchases and verified options	Approved revised cash plan
Warning remains unresolved	Escalate to responsible manager	Recorded decision and next review

Customer relationships are a relevant constraint. Repeated reminders without understanding a dispute may increase friction. Research should therefore assess the quality and proportionality of collection activity alongside cash outcomes. The model proposes an accountable planning process, not an aggressive collection policy. Sensitive customer records should be available only to people who need them for the stated purpose.

8. Propositions and forecast-evaluation measures

Proposition 1 states that incorporating current collection evidence will be associated with lower receipt-forecast error than treating invoice due dates as certain payment dates. Both optimistic and conservative errors matter. A forecast that systematically postpones every receipt may reduce surprises but unnecessarily constrain purchases and growth.

Proposition 2 states that justified delay scenarios will be associated with earlier warning of operational cash gaps. Warning lead time measures the interval between a recorded signal and the payment date requiring action. The number of alerts alone is inadequate, because excessive irrelevant warnings can burden owners and reduce attention.

Proposition 3 states that customer concentration moderates the value of the framework. A large customer can create a material timing exposure, but may also provide a longer and more interpretable payment history. The net direction should be tested rather than assumed uniformly adverse.

Measure	Proposed definition	Interpretation constraint
Amount error	Forecast receipt minus realised receipt	Match the same transaction and horizon
Timing error	Forecast date minus actual receipt date	Retain unpaid observations separately
Warning lead time	Time from signal to critical payment date	Consider interventions following the signal
Administrative burden	Minutes per forecast update	Include reconciliation and follow-up
Alert usefulness	Reviewed warnings leading to justified action	Avoid rewarding alert quantity alone

For timing error, unpaid receivables at the end of observation cannot be assigned an invented collection date. Evaluation should distinguish completed transactions from right-censored cases. Forecast versions must be frozen before outcomes occur. Repeatedly changing historical forecasts would destroy the basis for a fair comparison. No coefficient, significance level, or accuracy result is reported in this conceptual article.

9. Prospective study, implementation, and limitations

A prospective enterprise panel can collect weekly forecast versions and transaction-level outcomes over several business cycles. Enterprises should define evidence categories before data collection and document later changes. The design should record sales growth, seasonal demand, customer concentration, payment terms, and disputes because these may influence forecasting and cash outcomes simultaneously.

Where feasible, comparison enterprises or staggered introduction can help distinguish the framework from broader changes in business conditions. A before-and-after improvement is not sufficient evidence of causality. Better-trained owners may both adopt the worksheet and manage liquidity more effectively through other means.

Implementation can start with a short horizon covering the next critical obligations. The owner reconciles opening cash, verifies material receivables, and reviews three coherent scenarios. Only after definitions stabilise should reminders and calculations be automated. Digital tools can assist record maintenance, but cannot convert an unverified promise into a certain receipt.

Implementation stage	Main output	Validation question
Definition	Agreed categories and obligations	Do users interpret categories consistently?
Pilot	Versioned forecast and action log	Can records be maintained at reasonable cost?
Outcome review	Matched forecasts and receipts	Are errors and interventions measurable?
Wider application	Additional customers or periods	Does usefulness persist across conditions?

The framework has not been empirically validated. It does not replace receivable impairment assessment, accounting standards, or professional financing judgement. Cash sales, refunds, taxes, and contingent obligations require additional treatment. Customer privacy and legitimate access must be addressed in any field study. Evaluation should include lost opportunities from overly conservative forecasts and relationship effects from collection practices, not merely a reduced number of cash shortfalls.

10. Conclusion and contribution

Liquidity planning benefits conceptually from separating outstanding claims, evidence-supported receipt expectations, and cash already available. A dated obligation calendar and coherent receipt scenarios reveal a timing gap that a single receivable total may conceal. The example illustrates how the same final cash outcome can be preceded by materially different funding requirements.

The analytical contribution is the connection between evidence freshness, forecast versions, action lead time, and realised cash paths. It makes forecast quality observable without equating a payment promise with spendable funds. The operational contribution includes a receivable register, an obligation calendar, scenario rules, and assigned response triggers.

Future research should test predictive performance against simple due-date forecasting, measure administrative burden, and examine whether interventions account for apparent forecasting improvements. It should also study customer concentration as a contextual condition rather than a universally negative attribute. Frozen forecasts and traceable transaction outcomes are essential to avoid hindsight bias.

No universal payment probability, estimate of liquidity improvement, or enterprise-level finding is established here. The framework is a research proposal for short-term managerial planning. Application in West Java requires empirical validation across sectors and business cycles, with appropriate handling of customer data and a clear distinction between forecast uncertainty and accounting loss.

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