

**Our purpose is to
help organisations
make better
decisions using
data and analytics**



Pravin Burra- Founder/Director

Pravin holds an Actuarial Sciences degree from the London School of Economics (UK).

Before starting Analytix Engine, Pravin held senior executive data and analytics roles in financial services in Southern Africa, including being a partner/director at Deloitte South Africa.

Pravin's professional qualifications include FASSA, FIA, CERA and FRM (GARP).

Melanie Badenhorst – Data Scientist

Melanie holds a Masters degree in Business Mathematics and Informatics from the North-West University.

She has worked on projects across various industries, including scoring and impairment modelling, and is the product owner for the Analytix Engine Scorecard Engine.

With a strong academic background in Actuarial Science and Quantitative Risk Management, Melanie is a Part II Candidate for the Professional Risk Management (PRM) qualification.



Accelerating Profitability: Achieving a Competitive Edge Through Rapid Scorecard Development

Pravin Burra & Melanie Badenhorst
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Analytix Engine



Key questions to ask

- Do you know/have you decided **where to win**?
- Are you **proactively listening and tracking trends** as well as changes in **market dynamics & customer behaviour**?
- What is your **portfolio bad rate** vs **that expected at calibration**?
- Are you happy with the level of **portfolio segmentation** applied or do you use **average credit rules** across your portfolios?
- When was the last time you tested **alternate data**?
- **How long does** it take to:
 - Analyse trends
 - Explore model changes
 - Execute operationally



Introduction

Banks are fundamentally in the business of lending money to individuals and businesses

Lending is risky therefore it needs to be assessed and managed



What are credit scorecards?

Credit scorecards are **the tools** to evaluate the creditworthiness of potential borrowers and assign credit scores to customers.



A credit score is a measure

Used to communicate the quality or riskiness of a potential borrower in a simplified manner based on past performance of similar customers.



The origination **process**

Credit scoring is just one part of the loan origination process



Know Your Customer

Verify identification, employer,
address etc.



Affordability Testing

Can the customer afford the loan
repayment?



Credit Scoring

Assess the risk of default and assign
the customer a risk grade



Contract Terms & Pricing

Term, limit, collateral, deposit, rate



Cutoff for Acceptances

Decide if this deal makes the grade.
Strategy, risk appetite, profitability

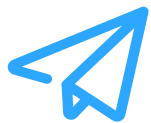


Onboarding & Disbursement

Open the account and approve the
funds



Operational benefits of **scoring**



1

Speed

Faster time to decision



2

Consistency

Consistent application of principles and judgement. This is closely aligned with treating customers fairly.



3

Scalability

It can be scaled across geography and channels.



4

Cost Saving & Experience

Automation reduces the cost of the approval process and improves customer experience.



Scorecards are
used to
rank customers

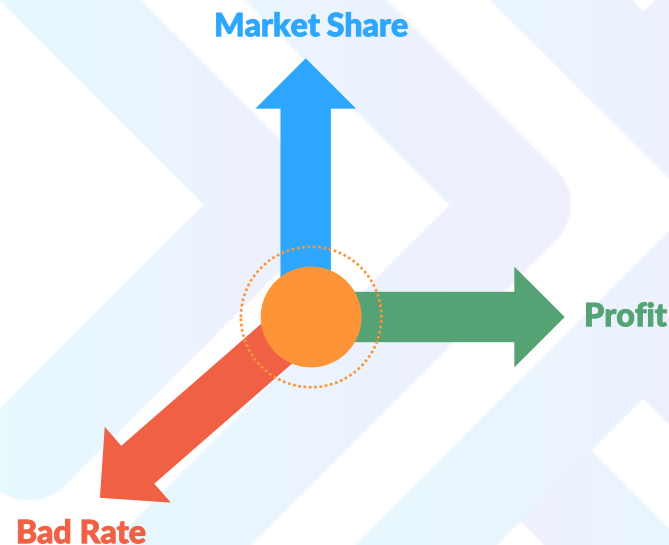


Scorecard cutoff

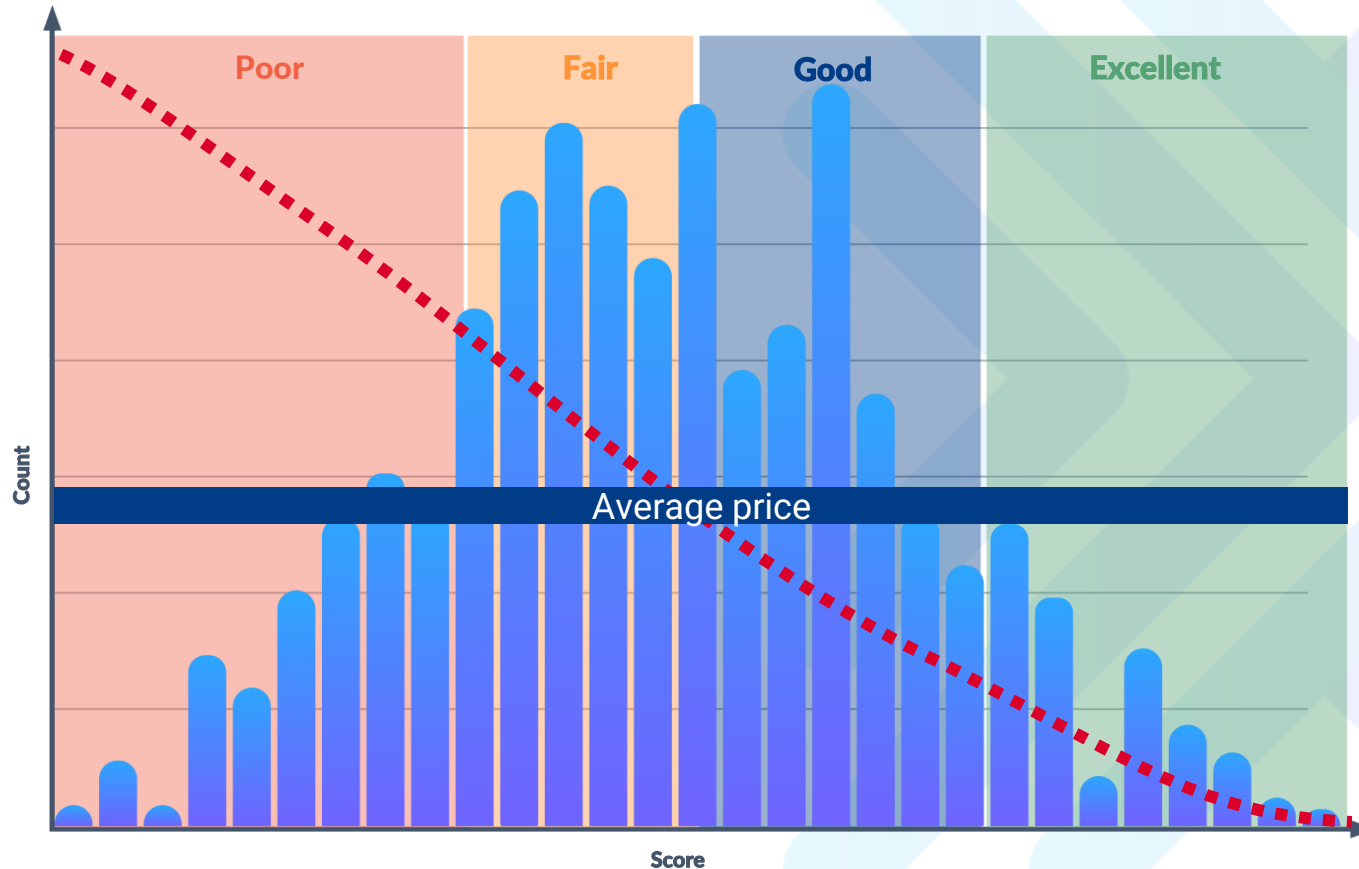
Deciding whom to accept?

The scorecard cutoff decision is a **constant conflict** against multiple desires:

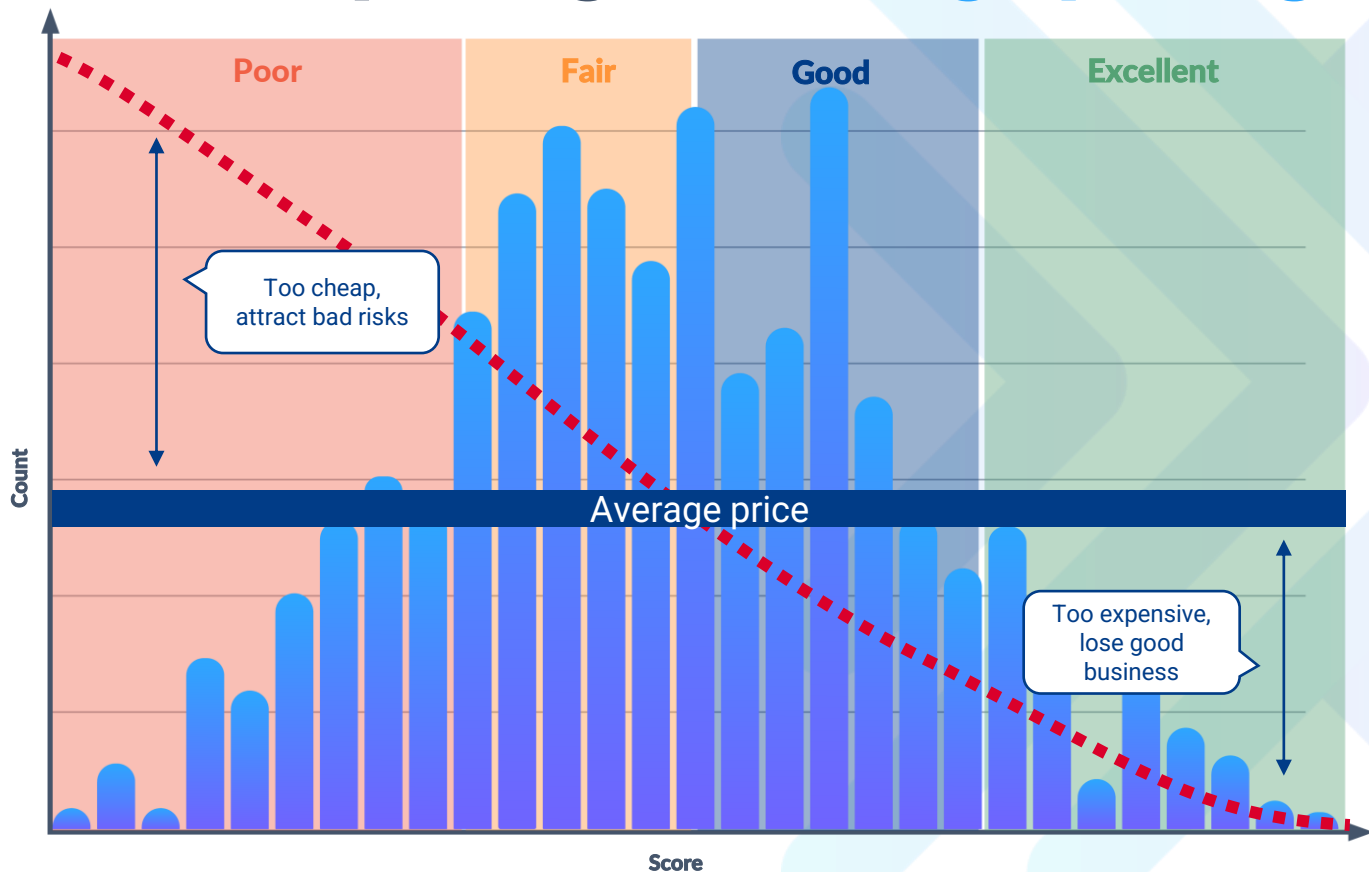
- **Low default rate**
 - Be conservative but lose market share
- **Increase market share**
 - Accept more customers by taking on more credit risk
- **Optimise portfolio profit**
 - Each new loan written must contribute positively (credit risk premium > cost of credit)



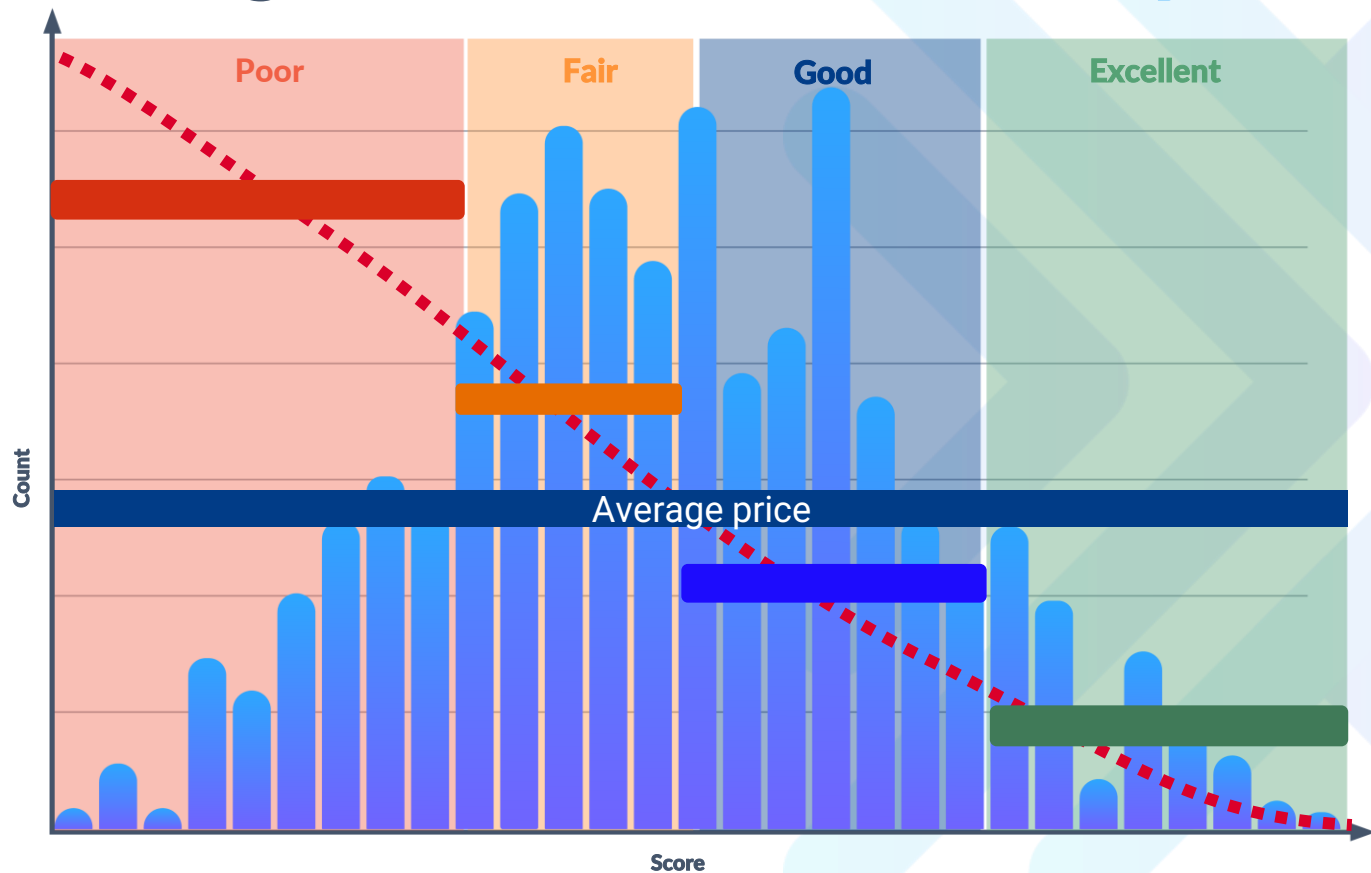
Risk based pricing vs average pricing



Risk based pricing vs average pricing



More segmentation: **Less subsidy**



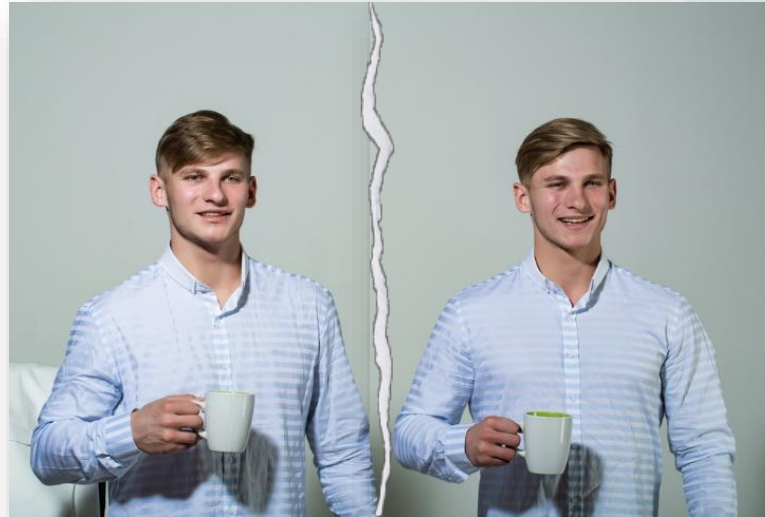
Personalisation in practice

My neighbour has a set of twins. While the twins are both dentists and earning circa R1.2m per annum, Jaco has a wife and two children, while Dawie is still enjoying the single life.

Note that they have the same **AGE** and **SALARY** but different **DISPOSABLE INCOME**.

Dawie:

More disposable cash.
Likely to have bought a fancy
bachelor pad.
Less need to upgrade to a larger
mansion.

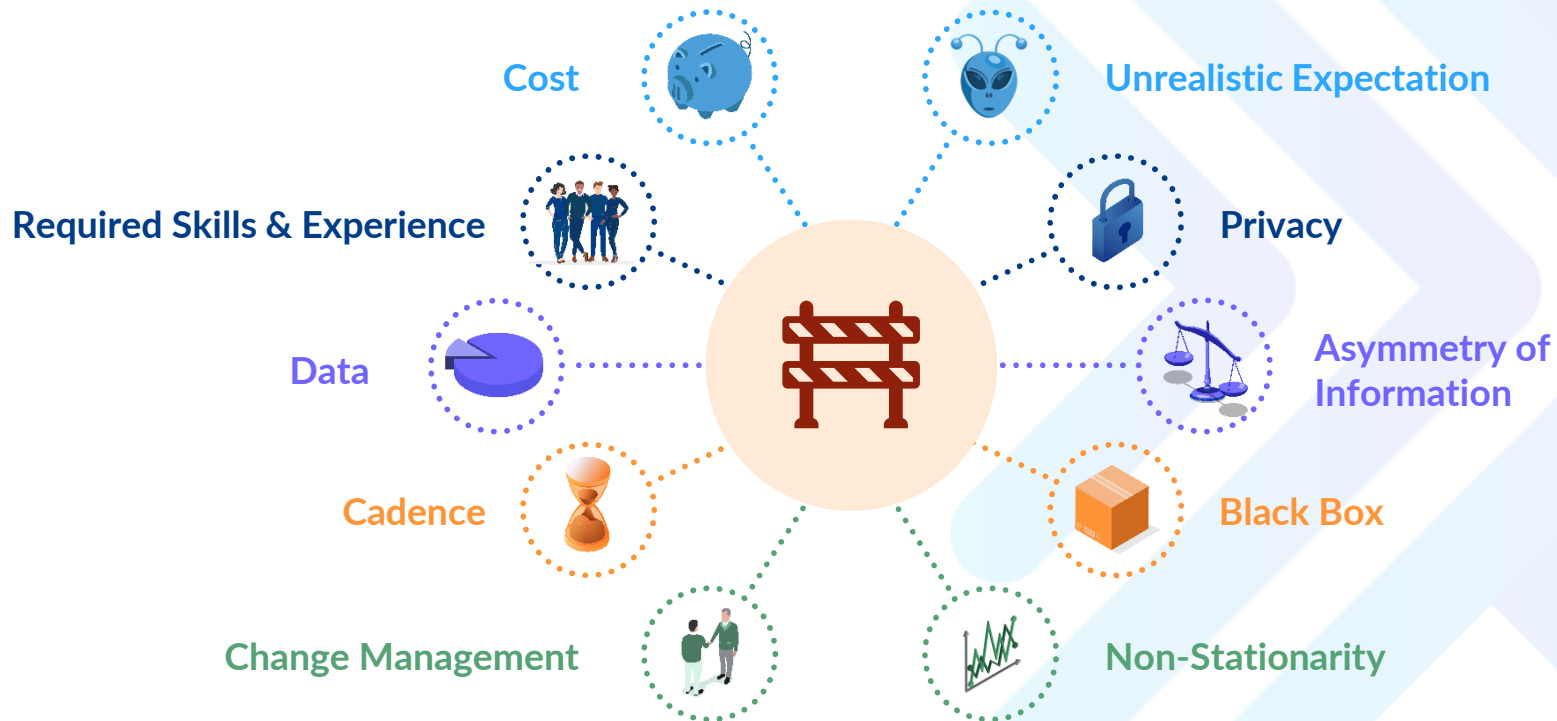


Jaco:

Regarded as more stable as he is
married.
Has less disposal cash.
He is currently renting but is more
likely to upgrade to a larger home
when he can afford to.

Common issues

that occur when building scorecards



Define winning

01

Achieve your organisation's strategy



02

Outperform your competition



03

Build trust with your customers



04

Improve your cadence to respond to market forces



How do **you** win?



01

Curate your data

02

Active listening

03

Choose your tools

04

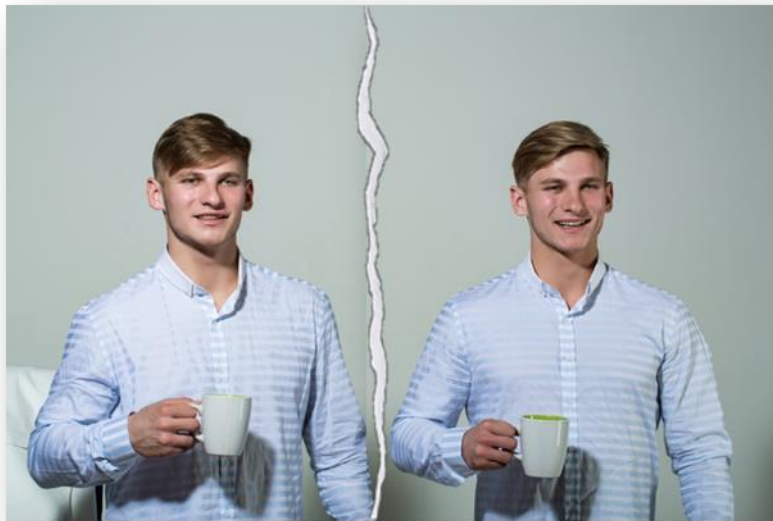
Build your team

05

Manage your workflow



How do **you** win?



01

Curate your data

- Single view of customer value
- Feature library
- Customer segmentation
- Regular refresh



How do **you** win?



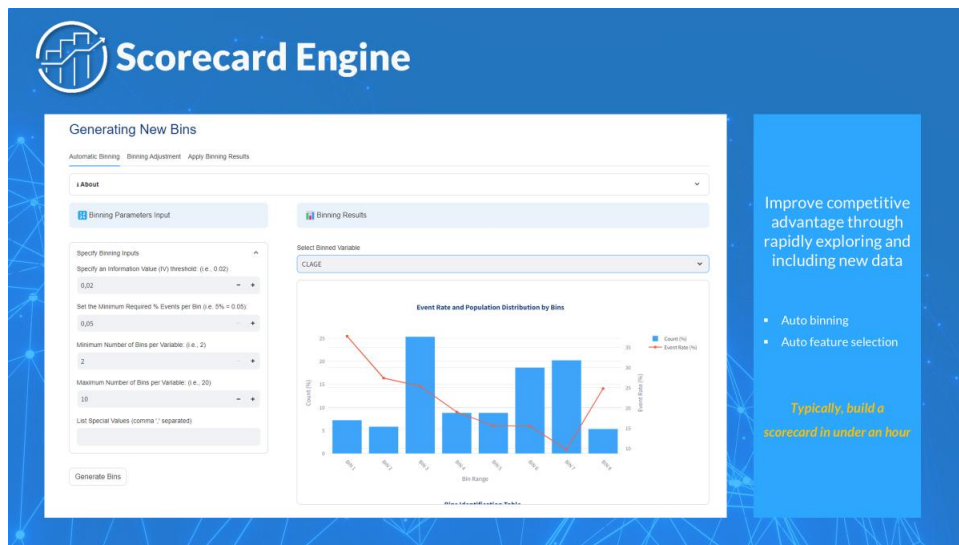
02

Active listening

- Think of monitoring as continuous validation
- Front book
 - Stability
 - Market share
 - Response rate
- Back book performance
 - Ranking
 - Level
 - A vs E
- Macro economics & politics
- Trend analysis & triggers



How do **you** win?



03

Choose your tools

- Scorecard Engine
- Decision Engine

Think About:

- Cadence
- Staff onboarding cost
- Key man risk - Low code/no code
- Governance
- Buy in: Lending team, Customer, Regulator & society



How do **you** win?



04

Build your team

To win you need a multidisciplinary TEAM working in concert.

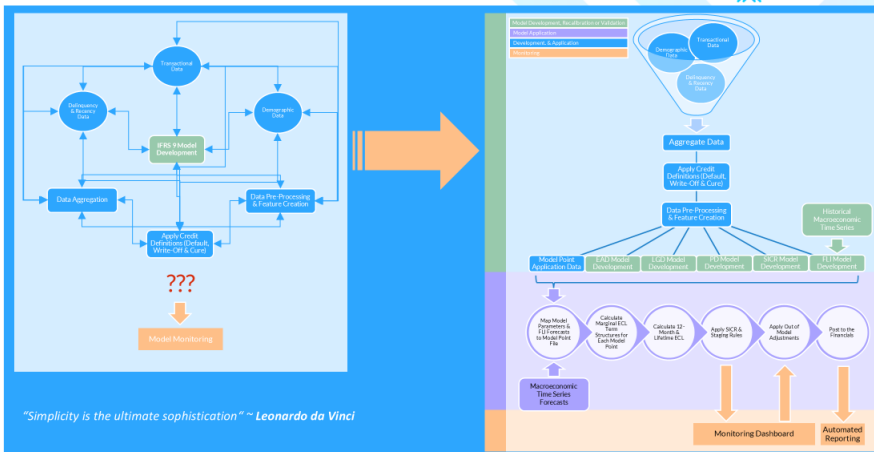
- Make data and modelling transparent.
- Build trust through better discussions.
- **Business and quants must challenge, test and enhance each other's perspectives.**
- Be realistic – aim for fast iterations rather than perfection on day one.
- Partner with good external parties:
 - Skills & experience
 - Capacity
 - Continuity
 - Different perspectives



How do you win?

Simplifying The Process to Extract Greater Value

Analytix Engine



05

Manage your workflow

- Simplify
- Automate with human in the loop
- Cadence of process
- Cadence of change
- Transparency





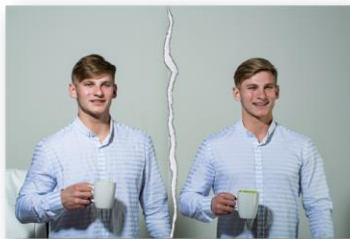
Scorecard Engine

Click on the **link: tool video**

How do you win?

Curate your data

Single view of customer value, feature library, customer segmentation, regular refresh



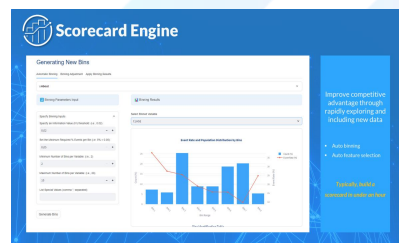
Active Listening

Think about monitoring as continuous validation. Trend analysis & triggers



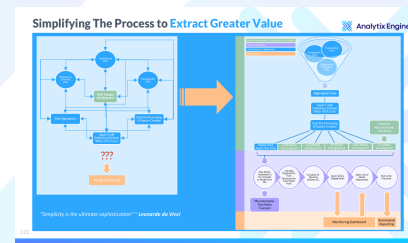
Tools

Scorecard Engine & Decision Engine. Cadence, transparency, good governance and reduction of key man risk



Team & Workflow

Simplify, automate & iterate



Questions





Analytix Engine

Pravin Burra

pravin@analytixengine.com

+27 82 336 1515

Melanie

melanie@analytixengine.com

www.analytixengine.com

