

Turning data into *decisions* leaders can fund.

A collection of projects I built to sharpen my analytical skills and explore business problems. It includes independent work with publicly available data and case presentations prepared for interviews over the years, spanning travel, marketplaces, public-sector payments, banking, and retail.

Learning projects & interview case studies.

These are independent learning projects and interview case exercises, using publicly available data or problems provided during interviews. None represents work carried out as an employee of any company. Company names provide case context only and do not imply employment, a client engagement or endorsement.

Figures are case-study observations, assumptions or modelled estimates, not verified employer outcomes. Proposed implementations and evaluation plans are identified as such.

Six cases, one pattern: size it, prove it, operationalise it

HEADLINE	ANALYSIS / PROPOSED VALUE	SETTING	
7-figure	Modelled annual revenue upside from fixing a checkout currency mismatch, packaged as an experiment-ready product case	Online travel agency · side project	Case A →
€180k	Modelled extra GMV a year, per city, from closing peak-hour supply gaps; plus an ROI-ranked incentive allocation model and global operating model	Ride-hailing marketplace, 45 countries / 500 cities · side project	Case B →
4,000	Physicians in a new payment model, with a weighted KPI scorecard and matched-cohort evaluation plan to decide whether to scale	Provincial physician payments · side project	Case C →
95%	Case-study matching benchmark of 95%, with a modelled opportunity to retain data control and save 36,000+ work hours a year	Retail bank, digital onboarding · side project	Case D →
2h → 10m	Packaging data QA per product, across 2,000+ new consumer goods a year	Global grocery retailer · side project	Case E →
2 markets	Prioritised for e-commerce expansion (UK, France), with a physical-retail partnership and demand-generation plan	Rare-spirits e-commerce · side project	Case F →

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ONLINE TRAVEL AGENCY SIDE PROJECT BUSINESS CASE TO PRODUCT

The price looked local. The card charge did not.

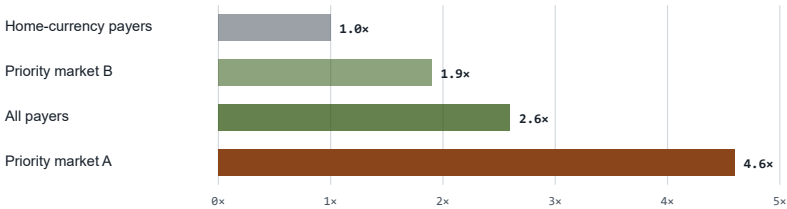
The site showed shoppers prices in their own currency, but most cards were charged in a single foreign currency. Could that cost bookings, and was it worth a product team's quarter to fix?

~85% of all paid transactions were settled in one foreign currency, 96 to 98% in the two priority source markets

4.6× the payment-cancellation rate of home-currency payers in the worst affected priority market (1.9× in the second)

7-fig base-case annual net-revenue upside across markets, with low and high scenarios; GMV impact roughly 3.5× that

PAYMENT CANCELLATION RATE, INDEXED TO HOME-CURRENCY PAYERS (= 1.0×)



DIAGNOSIS

- Examined charged versus displayed currency in the public-data checkout case study
- Used home-currency payers as the clean benchmark for payment failure
- Compared failure rates by payer market to isolate the effect of a foreign-currency charge

MODEL

- One uniform, defensible uplift rule per market: close the failure gap to the benchmark
- Applied to annualised, bot-filtered net revenue by currency
- Scenarios for recovering one-third, half and all of the gap

DECISION PACKAGE

- Structured as a proposed product brief: background, hypothesis, scope in and out, acceptance criteria, experiment metrics, risks
- Excluded markets where the change would not apply, to keep the number credible

LEADERSHIP SIGNAL

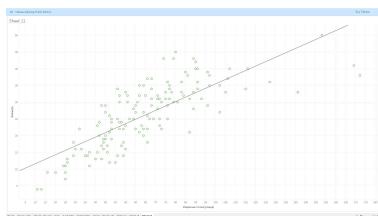
Identified a potential revenue leak, modelled an auditable business case and designed an experiment that a product team could evaluate.

Cancellation rates are shown as multiples of the home-currency benchmark.

TWO-SIDED MARKETPLACE SIDE PROJECT €500M INCENTIVE BUDGET

Where to spend €500M of incentives across 45 countries

Riders were opening the app and seeing no cars at peak hours. How much supply is missing, what should a driver be guaranteed to fill it, and how should a global incentive budget be allocated and governed?

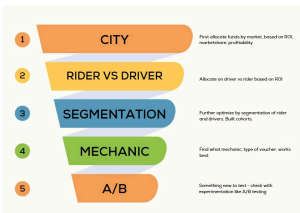


Online hours needed to meet demand: $\text{Online}(h) = 0.27 \times (\text{riders served}) + 8.97$

<60% coverage in the 7 to 11 AM peak, against an 80%+ standard; midday driver utilisation halves

0.27h extra online driver hours per missed rider (linear model, $R^2 \approx 0.6$, $p < 0.05$)

+€180k modelled GMV a year per city (illustrative annual scenario), with €19 / €24 guaranteed earnings per peak shift



Allocation cascade: city by ROI and profitability, then rider vs driver ROI split, then segment, mechanic and A/B test

PEAK-HOUR PROBLEM

- 24-hour and weekday-by-hour curves of demand, riders seeing zero cars, and active drivers
- Separated undersupplied peaks from an oversupplied midday pool that can be shifted

ALLOCATION MODEL

- Rank markets by incentive ROI (incremental GMV ÷ spend)
- Fund profitable high-ROI markets first, then the best loss-making markets to reach 30 to 40% share
- Split each city's budget between riders and drivers in proportion to their ROI

OPERATING MODEL

- Central growth analytics team, a finance business partner and heads of market, each with a clear role
- Review cadence: red KPIs studied ahead of the call, actions logged, owners and ETAs tracked

LEADERSHIP SIGNAL

Went from one city's hourly curve to a governance design for 500 cities, and stated the limits plainly: geography, organic cannibalisation, and when the linear model stops holding.

The allocation table uses illustrative data to demonstrate the method.

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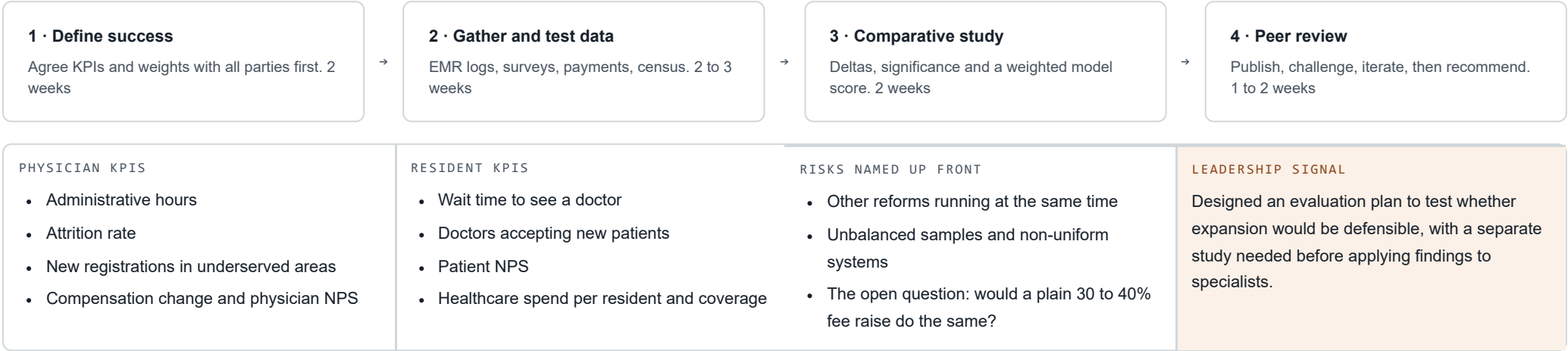
PROVINCIAL HEALTH PAYMENTS

SIDE PROJECT

SCALE OR NOT?

Should a new physician payment model be scaled?

4,000 family physicians moved from fee-for-service to a longitudinal payment model and saw 30 to 40% higher pay. Media coverage was positive. Before extending it, how do we prove it works for physicians, patients and the system's finances?



BANKING • KYC

SIDE PROJECT

APPLIED COMPUTER VISION

BANCO DAYCOVAL

Bringing selfie identity checks in-house

The bank relied on a third-party service to verify new customers by selfie during web and mobile account opening. Could an in-house model match it and keep sensitive customer data under the bank's own control?

95%

case-study matching benchmark; not a production deployment result

~10k

new accounts opened each month

36k+

potential work hours saved a year

Inputs

Selfie, identity document and the data the customer typed in

→

Face match

Siamese network compares the selfie with the document photo

→

Text match

OpenCV contour detection and Tesseract OCR read name, date of birth, ID number and address

→

Verify

Image and text comparisons together confirm the applicant's identity

PROBLEM

Vendor dependence on the most sensitive data the bank holds, at the front door of every new account.

APPROACH

Two independent checks on every application: the face against the document, and the typed data against the document.

BUSINESS CASE

Proposed value: matching performance near the case-study benchmark, greater data control and potential annual time savings.

LEADERSHIP SIGNAL

Framed an ML build as a risk and cost decision that a bank's leadership could approve.

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RETAIL • CPG

SIDE PROJECT

AI QUALITY ASSURANCE

CARREFOUR

From hours of manual checks to a ten-minute QA

The retailer brings over 2,000 consumer packaged goods to market each year. Checking that the product data printed on each package is correct took a multi-stage manual process of hours or days per product, per iteration.

2,000+ new packaged products a year in scope

2h+ → 10m baseline versus proposed AI QA time per product in the scenario

90%+ estimated QA time saving in the scenario

PROBLEM	APPROACH	MODELLED BENEFIT	LEADERSHIP SIGNAL
A slow, multi-stage manual gate repeated for every product and every packaging iteration.	Replace the manual review with an automated, AI-driven QA process for packaging data.	A proposed reduction to about ten minutes from two hours or more per product: an estimated saving of over 90%, subject to validation.	Picked a process where time saved compounds across thousands of launches a year.

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E-COMMERCE • EUROPE SIDE PROJECT RARÓ

Where a niche e-commerce brand should grow next

Against seven major competitors, the brand trailed the top five on assortment size, review-based quality and online traffic. Which markets should it enter, online and offline, and which should it avoid?

	Country (120)	Traffic Share ↓	Competitive traffic share
1	United Kingdom	39.09%	
2	United States	14.88%	
3	India	5.78%	
4	Australia	4.18%	
5	Japan	2.33%	

Competitor traffic by country (SimilarWeb), used to size where demand already exists

~40% of the top three competitors' web traffic comes from the UK

~62% of the leading French competitor's web traffic comes from France

4.4★ brand rating on Trustpilot versus 4.8 to 4.9 for the top two rivals: quality is there, authority is not

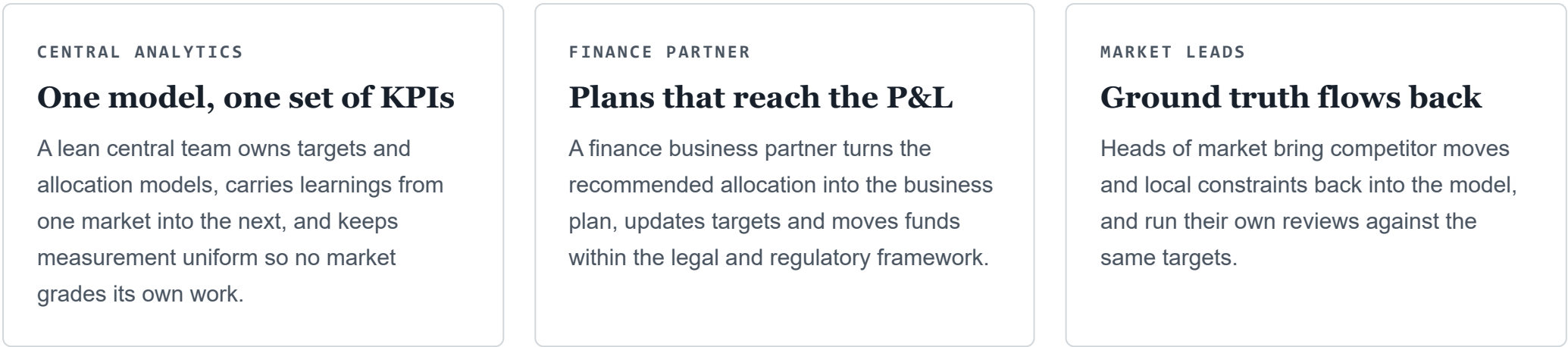
MARKET SCREEN

MARKET	PER-CAPITA WHISKY	E-COMMERCE RANK
France	2.15 L	7th
UK	1.25 L	4th
US (reference)	1.41 L	

ONLINE	OFFLINE	AVOID FOR NOW	LEADERSHIP SIGNAL
- Enter UK (outside the EU) and France (inside the EU) with digital marketing - Content and keyword strategy, niche influencers, social channels - Look-alike personas built from existing customers	- Partner with premium grocery chains such as Eataly (about 45 stores in 15 countries) - Premium hotels, tasting events and high-end whisky bars	APAC, US and MENA: mature, crowded, capital-heavy, and complex to license for alcohol sale and delivery.	Prepared an executive-style recommendation on where to expand and where to hold back, supported by public market evidence.

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An operating model for the marketplace case



BEFORE	IN THE ROOM	AFTER	NEXT REVIEW	OVER TIME
Red KPIs studied	Decide, don't narrate	Actions cascaded	Status first	Did it move the metric?
Owners prepare an action plan ahead of the call	Global finance and market heads align on actions	Logged with an owner and a date	Or sooner, at the agreed ETA	Actions are judged by the KPI, not by completion

Weekly, bi-weekly or monthly depending on how fast the market moves. Tooling: leadership dashboard, drill-down operational dashboards, an action log and an analytical stack for ad hoc deep dives.

Have a case or an idea to discuss?

I enjoy exploring new analytical problems and comparing approaches.
For my professional experience and background, [visit Home](#).

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