

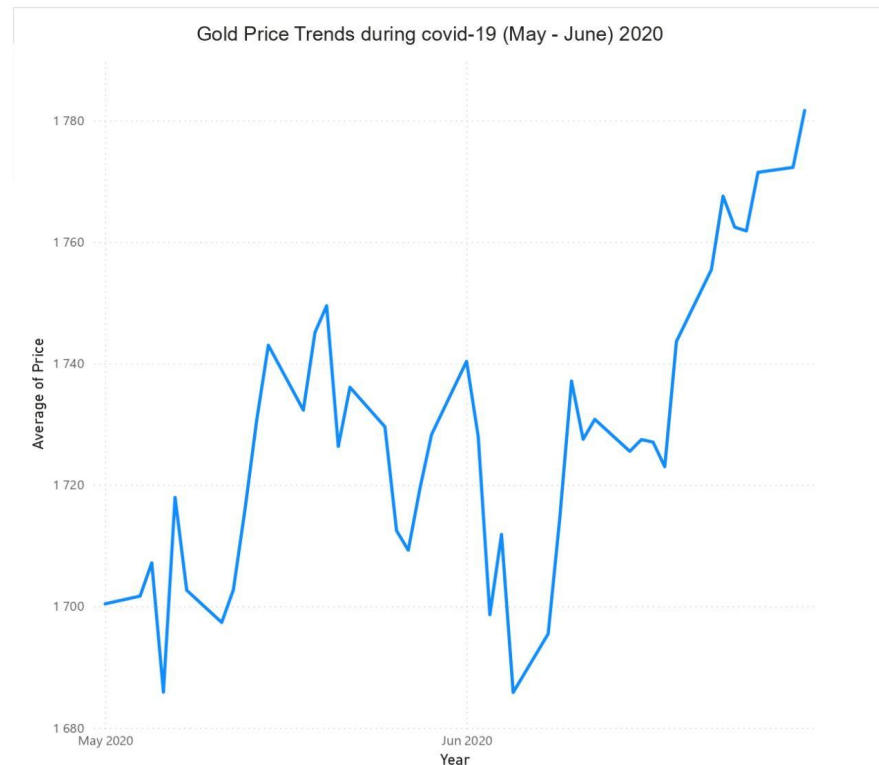
From Data to R45 000 - How I Applied Data Analysis to Gold Trading During COVID-19

A data-driven trading case study

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Problem & Context

- COVID-19 created extreme market volatility in 2020.
- Gold (XAUUSD) behaved like a safe-haven: big rallies and sharp retracements.
- Problem: volatility = opportunity, but also risk. I wanted a reproducible, data-driven approach to trade safely and consistently.



Objective & Key Questions

Objective: Use technical indicators and disciplined TP/SL to generate repeatable profits trading gold (May–Dec 2020).

Questions:

1. What trends/patterns occurred during COVID-19?
2. Which indicators gave dependable signals?
3. How to minimize risk while maximizing profit?
4. Can data-driven rules beat emotional/news trading?
5. What lessons apply outside trading?

Dataset (May–Dec 2020)

Period: **May 1, 2020** → **Dec 31, 2020** (daily).

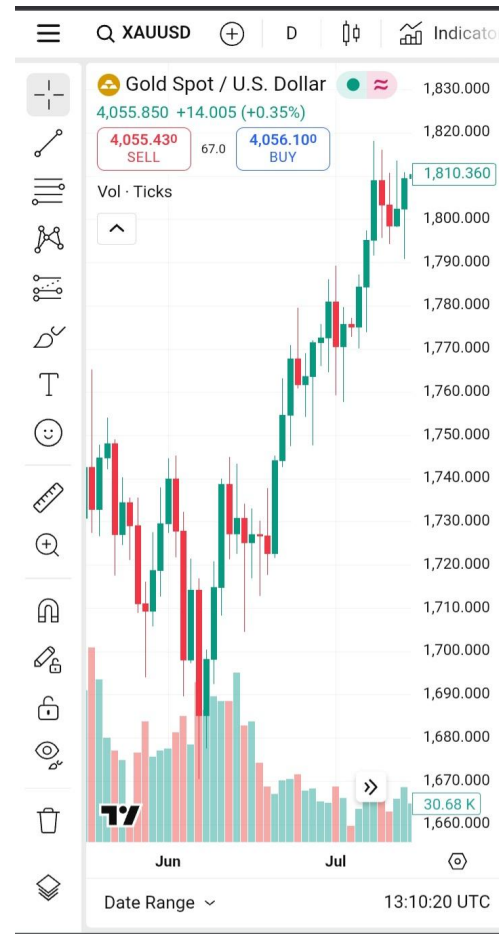
Columns used: Date, Gold_Price (Close),
SMA_7, SMA_14, SMA_30, RSI_14,
Fib_Level, Support, Resistance, TP, SL,
Signal.

Tools: Excel to clean, compute indicators, and
export for visualization.

	A	B	C	D	E	F	G
1	Date,Open	High,Low,Close,Volume,SMA_7,SMA_14,SMA_30,RSI_14,					
2	2020-05-30	1691.23,1695.1,1687.5,1691.45,15461,1696.81,1702.98,;					
3	2020-05-31	1689.09,1694.39,1683.35,1690.29,15385,1695.16,1701.4					
4	2020-06-01	1698.56,1705.41,1688.75,1699.81,12021,1695.1,1700.44					
5	2020-06-02	1696.02,1704.49,1691.65,1697.83,12409,1694.93,1699.6					
6	2020-06-03	1693.33,1701.67,1685.0,1693.13,12894,1694.5,1699.08,;					
7	2020-06-04	1695.5,1704.4,1692.58,1695.46,12514,1694.22,1698.17,;					
8	2020-06-05	1692.53,1694.82,1686.34,1692.65,19294,1694.37,1696.8					
9	2020-06-06	1690.32,1695.22,1688.44,1690.65,16904,1694.26,1695.5					
10	2020-06-07	1681.59,1689.43,1677.75,1683.7,19867,1693.32,1694.24					
11	2020-06-08	1673.63,1678.47,1670.34,1675.89,16969,1689.9,1692.5,;					
12	2020-06-09	1678.26,1683.37,1672.03,1676.7,16109,1686.88,1690.91					
13	2020-06-10	1679.97,1689.55,1676.34,1680.02,17066,1685.01,1689.7					
14	2020-06-11	1681.2,1687.85,1676.98,1679.74,19121,1682.76,1688.49					
15	2020-06-12	1678.51,1685.96,1674.02,1678.95,19157,1680.81,1687.5					
16	2020-06-13	1679.74,1686.24,1674.29,1677.62,19179,1678.95,1686.6					
17	2020-06-14	1670.19,1677.55,1665.8,1670.09,14134,1677.0,1685.16,;					
18	2020-06-15	1669.34,1674.57,1661.22,1668.86,15595,1676.0,1682.95					
19	2020-06-16	1664.26,1675.03,1657.61,1664.84,14956,1674.3,1680.59					
20	2020-06-17	1669.49,1676.43,1667.45,1668.96,13560,1672.72,1678.8					
21	2020-06-18	1670.59,1682.18,1663.85,1674.32,17420,1671.95,1677.3					
22	2020-06-19	1663.52,1672.97,1656.24,1665.17,13266,1669.98,1675.3					
23	2020-06-20	1665.51,1669.62,1661.68,1666.96,14169,1668.46,1673.7					
24	2020-06-21	1661.59,1666.81,1654.21,1665.31,19314,1667.77,1672.3					
25	2020-06-22	1661.04,1663.65,1650.5,1658.64,15638,1666.31,1671.16					
26	2020-06-23	1662.81,1666.13,1659.57,1662.59,12749,1665.99,1670.1					
27	2020-06-24	1668.25,1671.82,1663.22,1669.19,15427,1666.03,1669.3					
28	2020-06-25	1672.57,1680.59,1664.17,1673.6,16780,1665.92,1668.94					
29	2020-06-26	1668.22,1672.11,1660.38,1667.23,13927,1666.22,1668.1					
30	2020-06-27	1667.31,1672.3,1662.78,1668.33,15804,1666.41,1667.44					
31	2020-06-28	1667.35,1677.64,1664.26,1667.62,15702,1666.74,1667.2					
32	2020-06-29	1672.33,1676.77,1668.01,1672.5,14356,1668.72,1667.52					
33	2020-06-30	1672.65,1679.91,1664.82,1671.36,16790,1669.98,1667.9					
	f_x	Date,Open,High,Low,Close,Volume,SMA					

Analytical Approach

SMA (7,14,30)	Trend detection & crossover signals
RSI (14)	Momentum: overbought/oversold confirmation
Fibonacci Retracements	Entry and TP zones on pullbacks
Support & Resistance	Structural levels for SL/TP placement
Candlestick Patterns & Price Action	Visual confirmation for entries
TP & SL (strict)	Risk control and automated exits



Strategy Logic (rules)

Data → Indicators computed
(SMA, RSI, Fib)

Entry rule: $SMA7 > SMA14$ AND $RSI > 50$ →
Confirm candle/pattern → **Enter BUY**

Exit: TP hit OR SL hit OR
 $SMA7 < SMA14$ (SELL signal)

Set SL below support / set TP at
Fibonacci target (1:2 reward:risk)

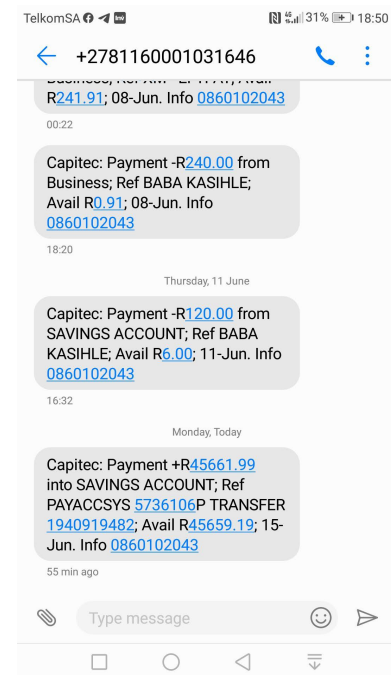
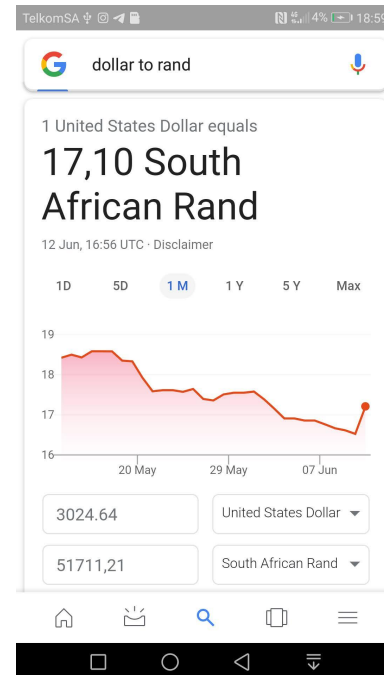
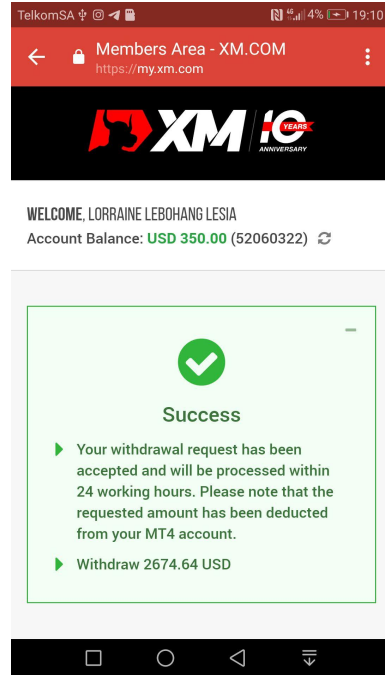
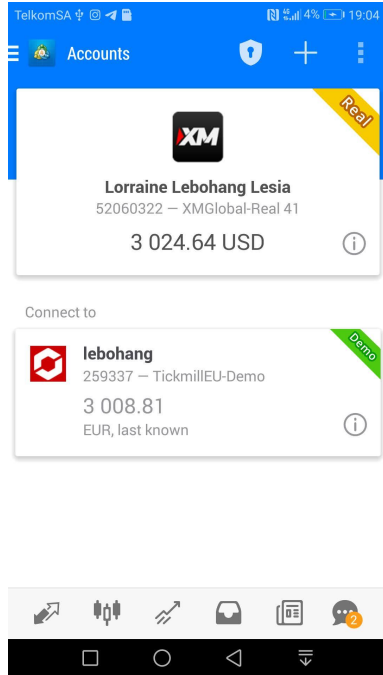
Log trade → Review & refine

Results & Verified Outcome

Total Profit
R 45,000

ROI
38.5%

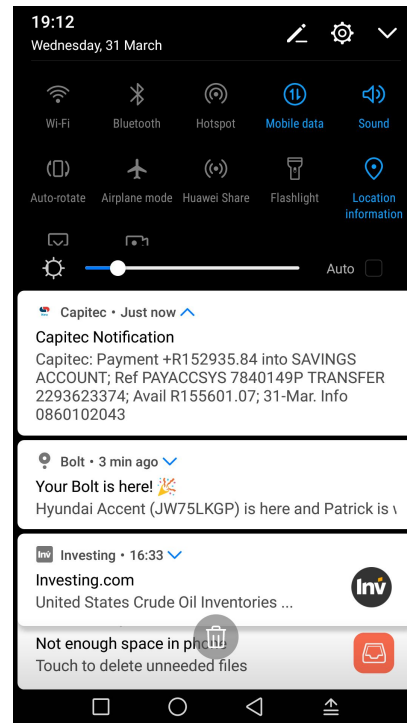
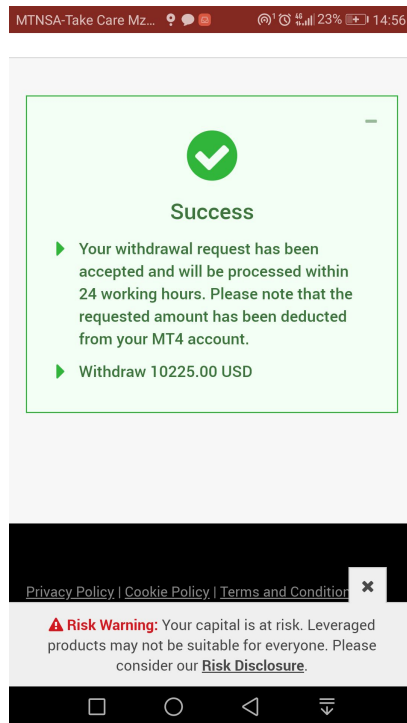
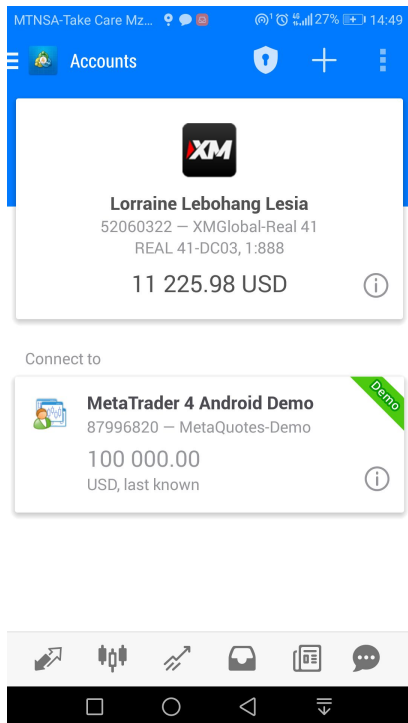
Win Rate
65%



Verified withdrawal (June 2020) - used as portfolio proof. *Note: portfolio visuals are scaled to showcase R45,000 outcome; see README for assumptions and dataset*

Sustained Results Beyond 2020

Capitec confirmation: +R152,935.84 - demonstrates continued profitability beyond the initial project period.



Insights & Recommendations

Insights:

- SMA + RSI + Fibonacci confluence produced reliable setups.
- Candlestick confirmation improved entry precision.
- Avoiding high-impact news reduced false breakouts.
- TP/SL discipline preserved capital (max drawdown low).

Recommendations:

1. Automate backtests across multiple years.
2. Add volatility filters (ATR) and position sizing rules.
3. Build a live Power BI dashboard for monitoring.
4. Consider ML classification on candlestick patterns for signal refinement.

Data transforms uncertainty into strategy.
Through disciplined application of analytics, I
turned information into R45 000 in real
trading results.

Reflection & Next Steps

- Data-driven discipline outperforms emotional trading.
- Reflection: Data discipline turned volatility into predictable opportunity.

Next Steps: Automate backtesting, develop Power BI live dashboard, and scale cautiously using improved risk controls.

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