



Data Got Talent 2023: Data Driven Business

WATAB DATA ANALYSIS

By EcoByte

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WA TAB BUSINESS OVERVIEW



WA TAB provides betting services to customers on a variety of events, including horse racing and greyhound racing, as well as many other sports, including Australian and international competitions.

POSITIONING

- WA TAB is considered a comparatively modest entity within the larger scope of the gambling industry.

KEY ACTIVITIES

- Manage betting pools for various racing products
- Set odds and payouts
- Provide betting platforms (online, mobile, in-person)

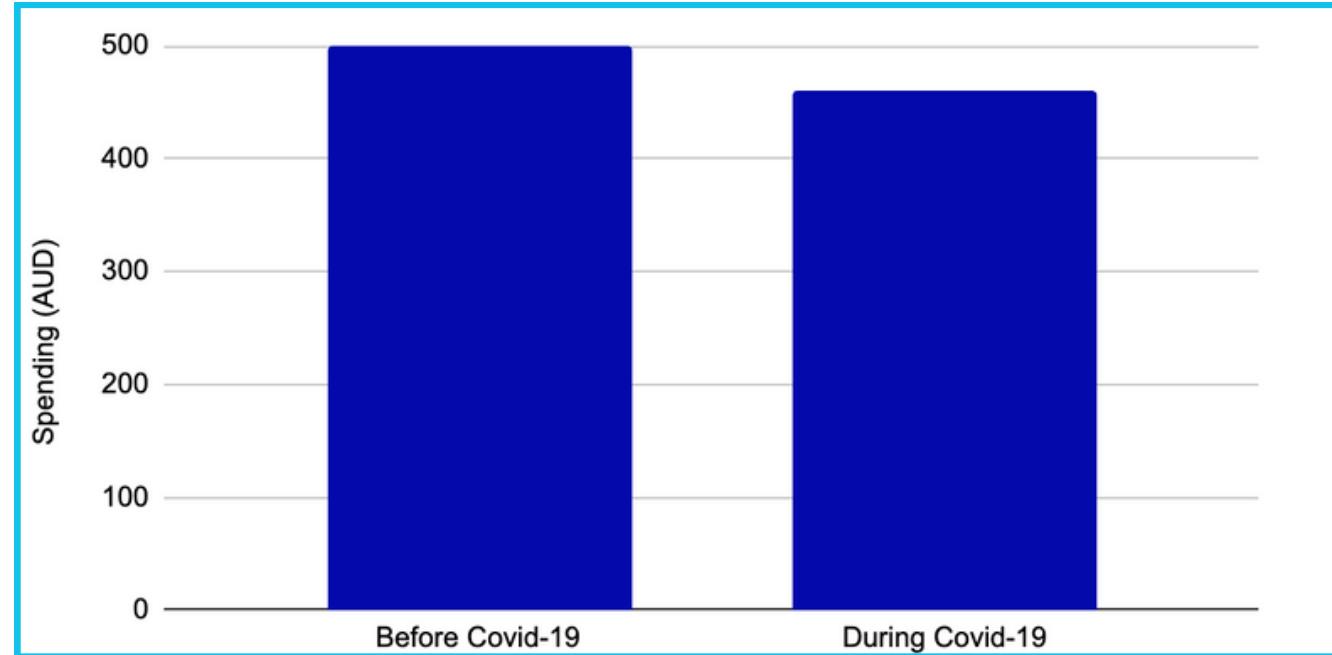
CHANNELS

- TAB Retail outlets
- TABTouch Digital (Mobile app, Online website)

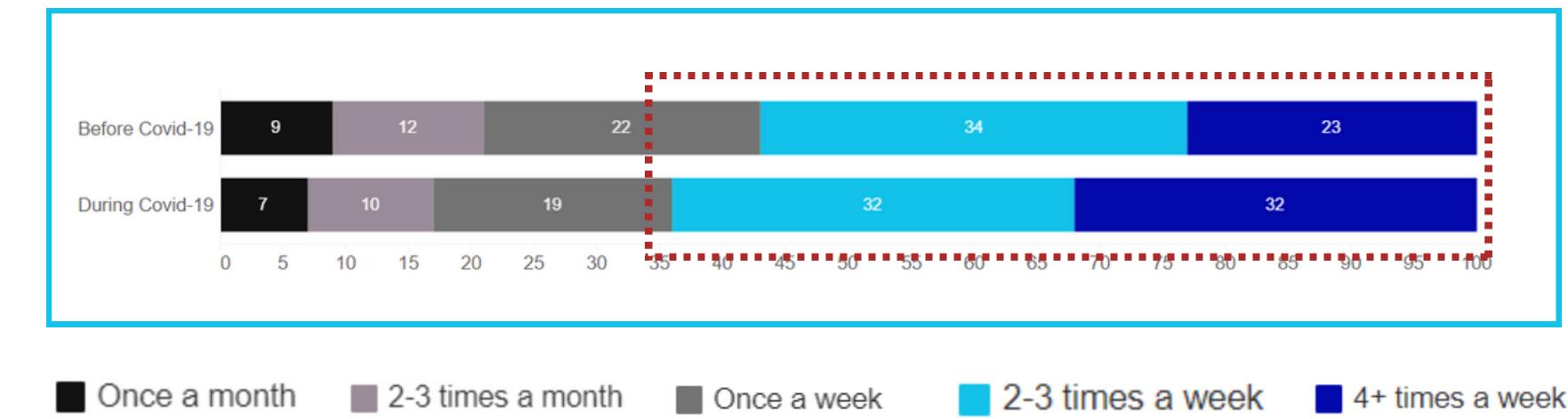
Australia Betting Market Overview

Australia's betting market was slightly affected despite the Covid-19 pandemic thanks to increase in online gambling platform user.

Australian Monthly Spending on Gambling and Betting Industry



Australian Level of Frequency on Gambling and Betting Industry



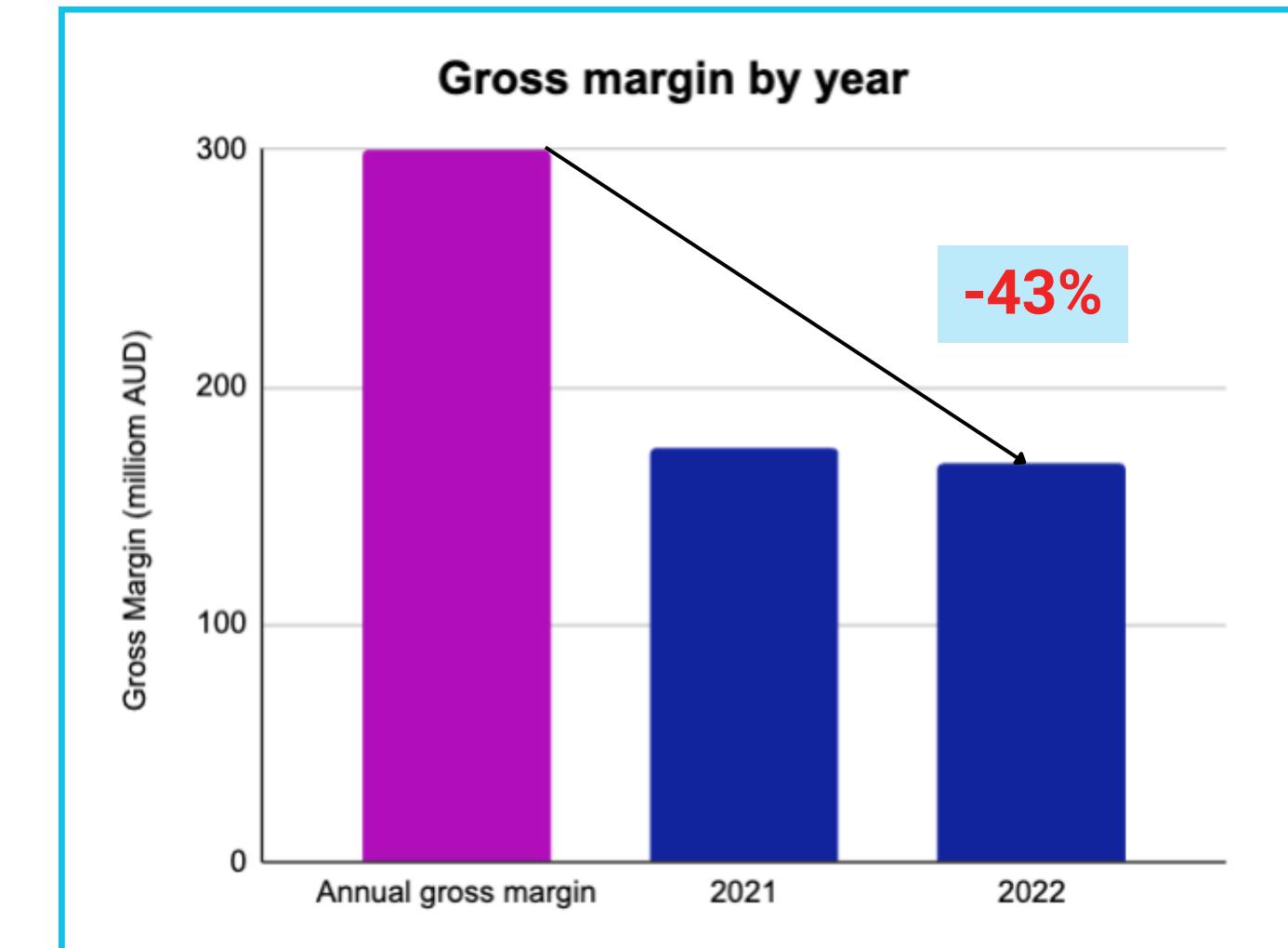
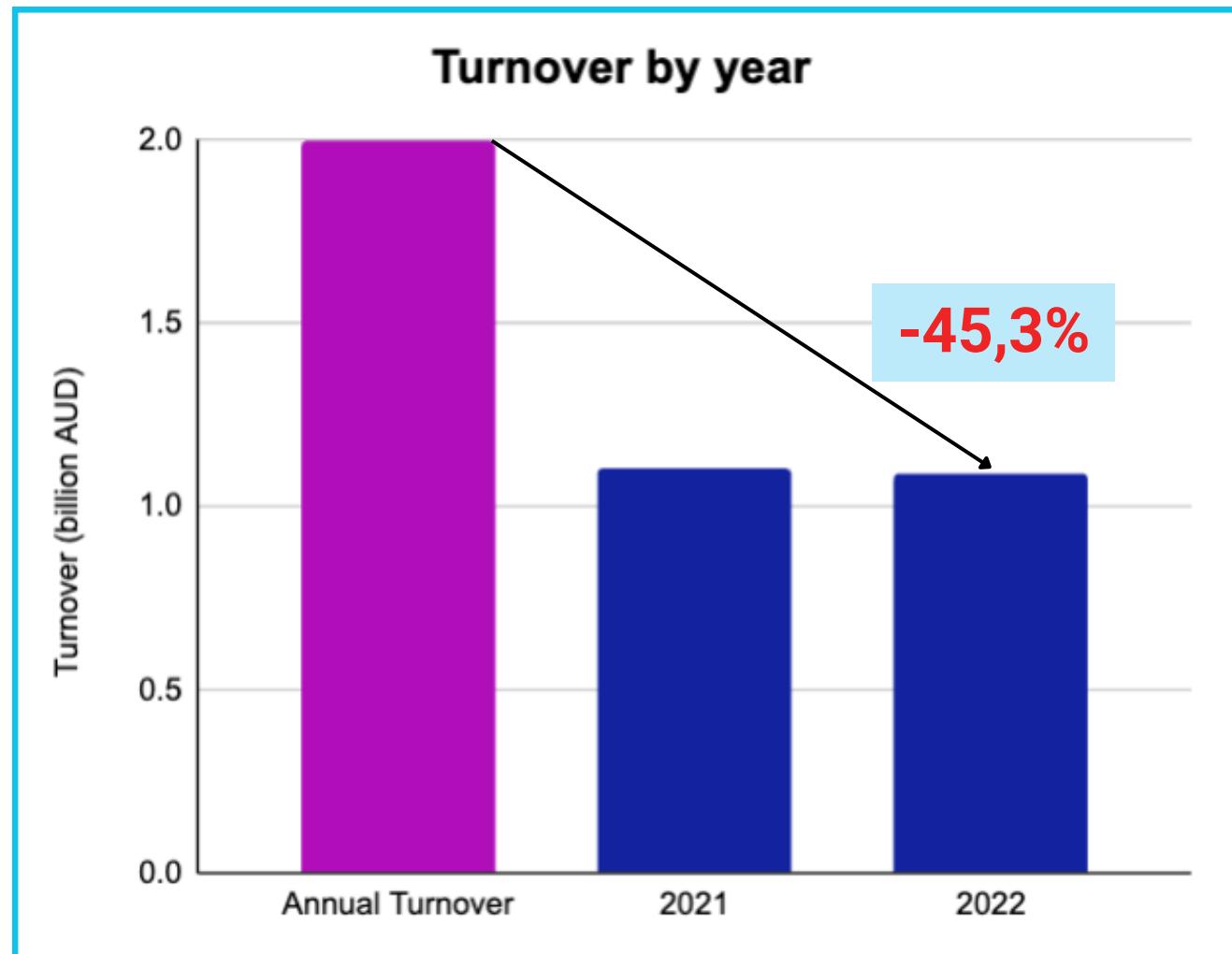
According to Australian Gambling Research Centre in 2019-2020,

- Average spending fell from \$500 (2019) to \$460 (2020), but online engagement **rose 78%**, mitigating the decline.
- Moreover, the proportion of people gambling four or more times per week **increased notably**, from 23% to 32%.

The gambling and betting industry remained lucrative, as consumers increasingly spent more on online gambling platforms.

Sales Performance

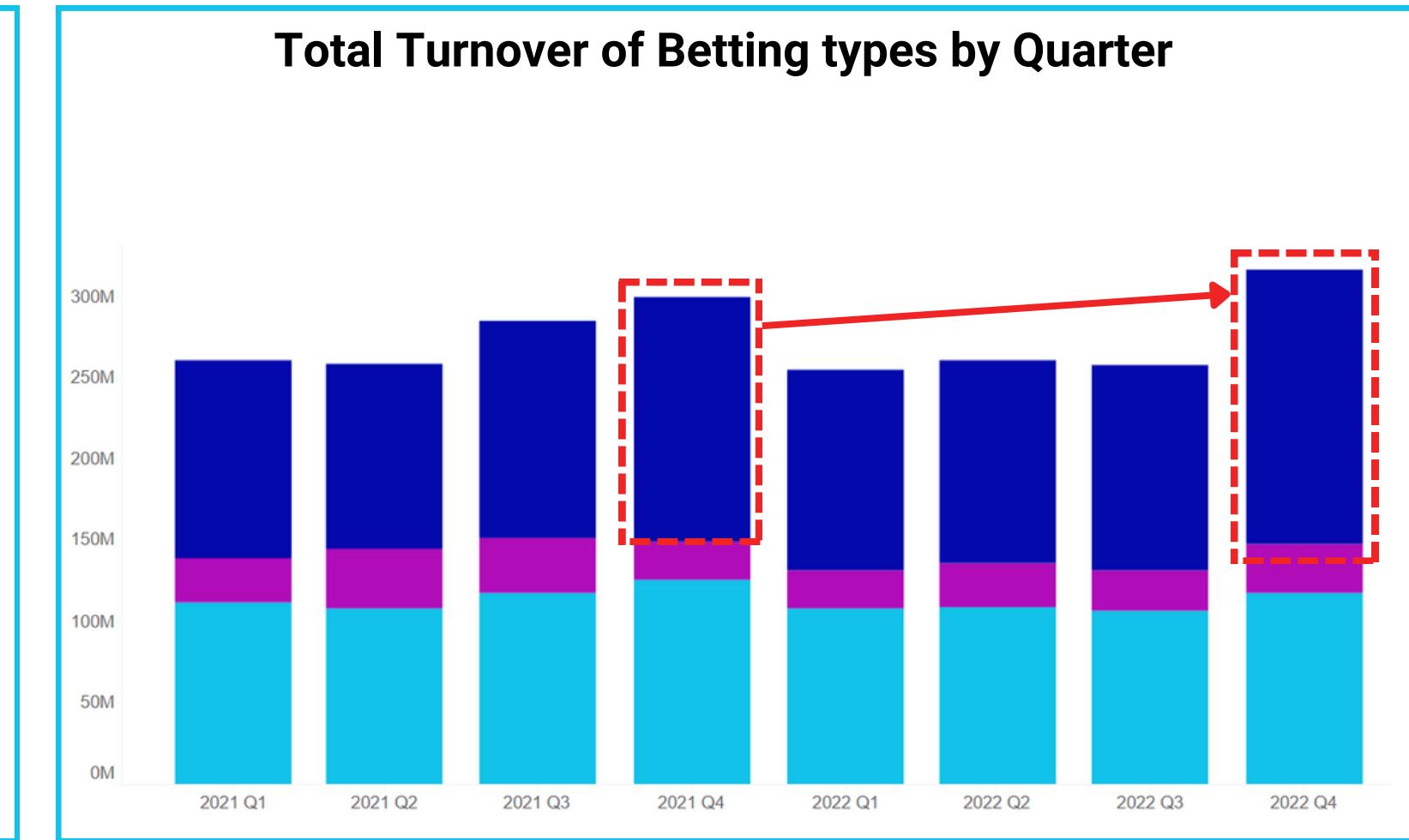
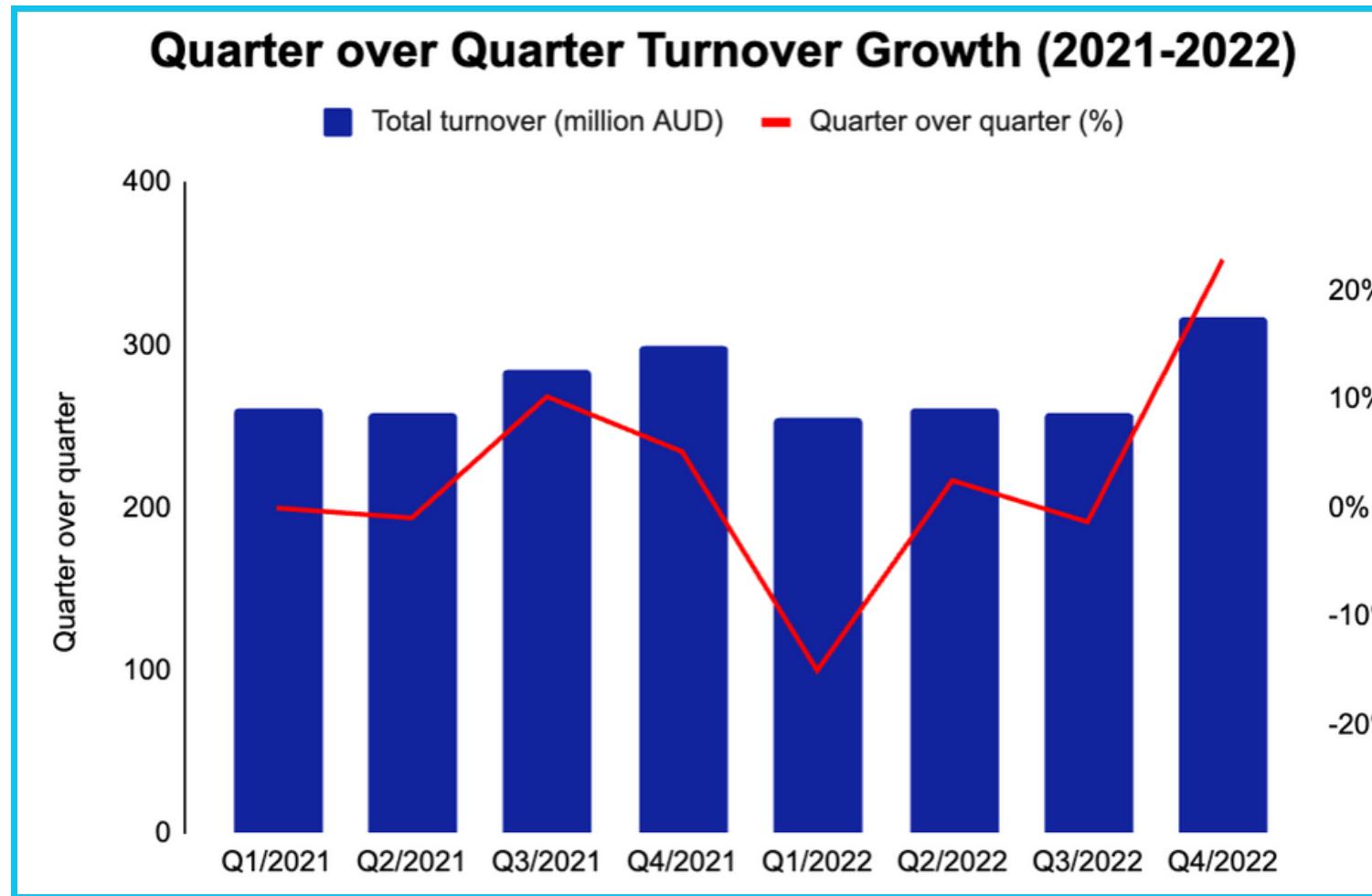
The turnover and gross margin decreased compared to annual expectations due to the Covid-19 pandemic.



- The total turnover for the 2021-2022 fiscal year reached only 2.2 billion AUD, representing a **decrease of 45.3%** compared to expectations.
- Similarly, the two-year gross margin was around 600 million AUD, but it sharply **decreased by 43%** to 342 million AUD in 2021-2022.

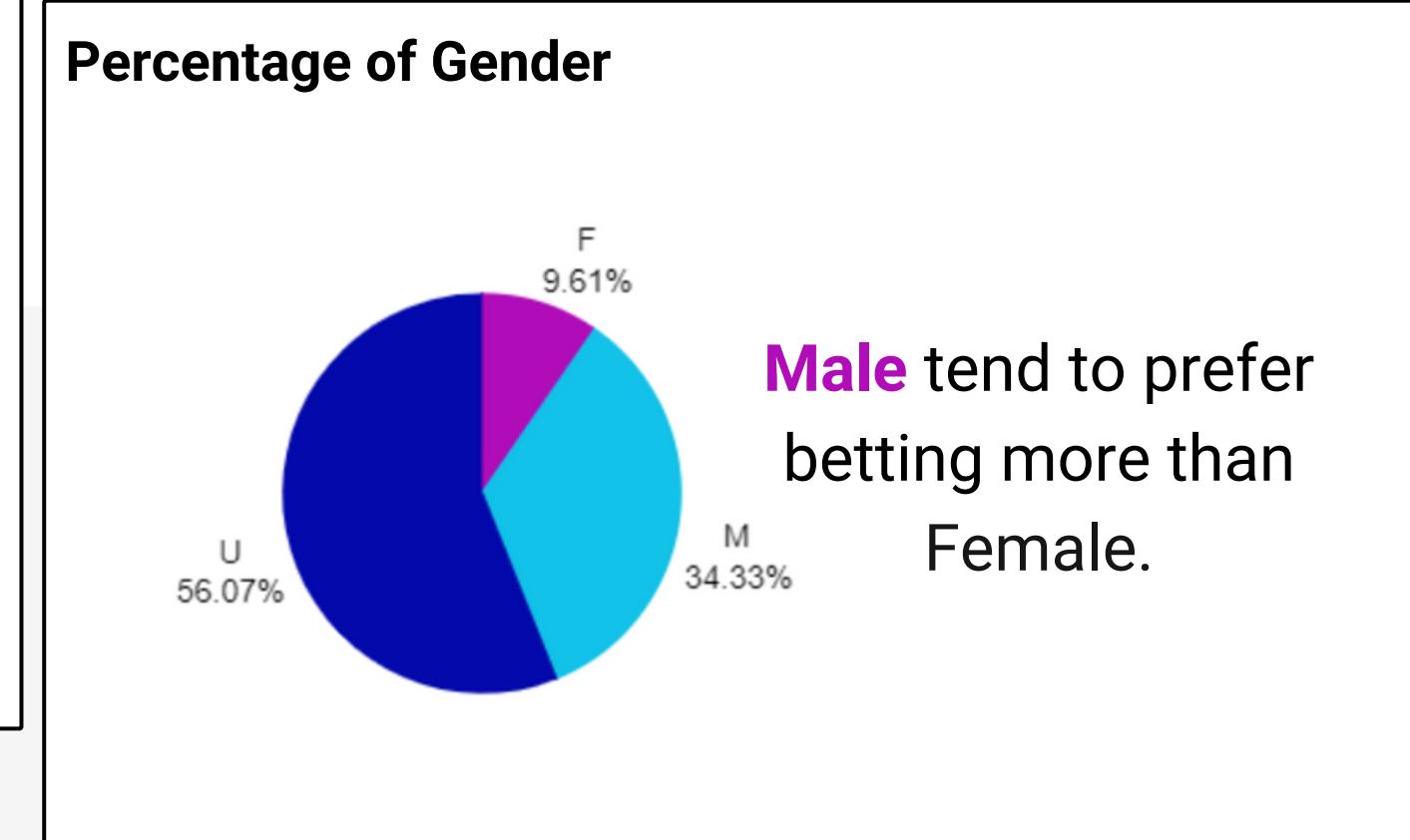
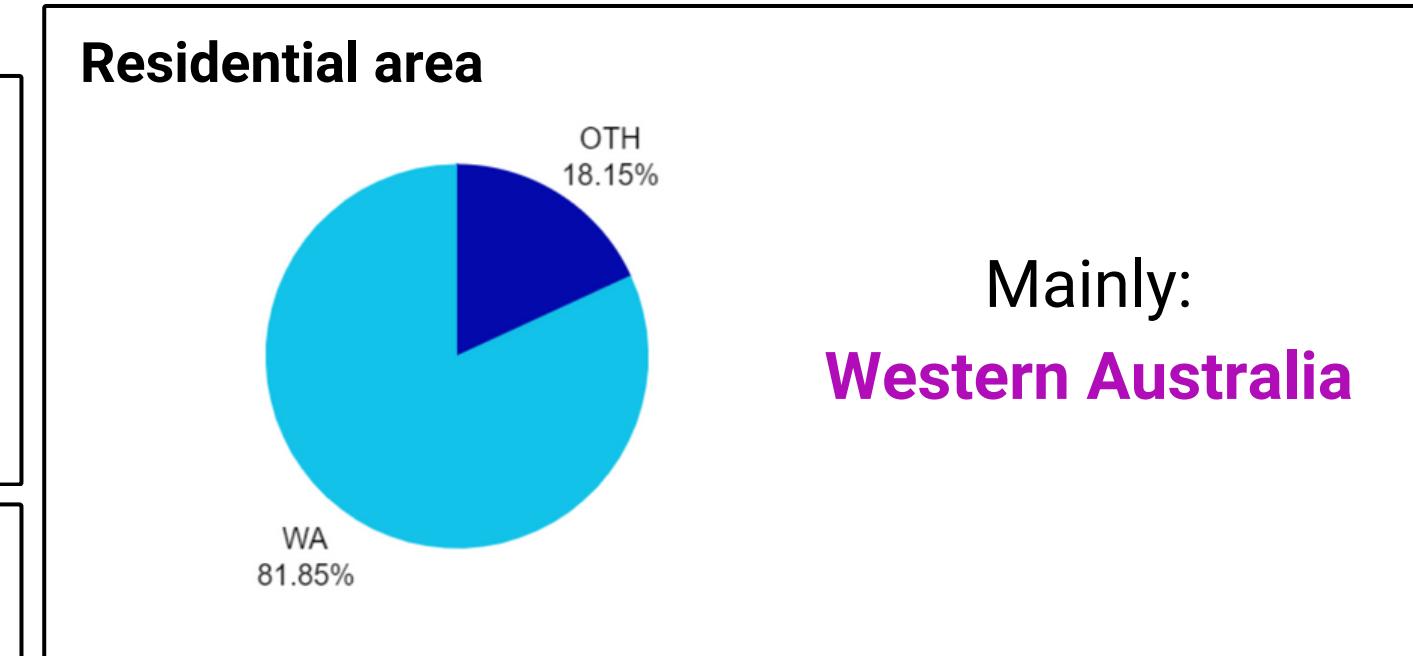
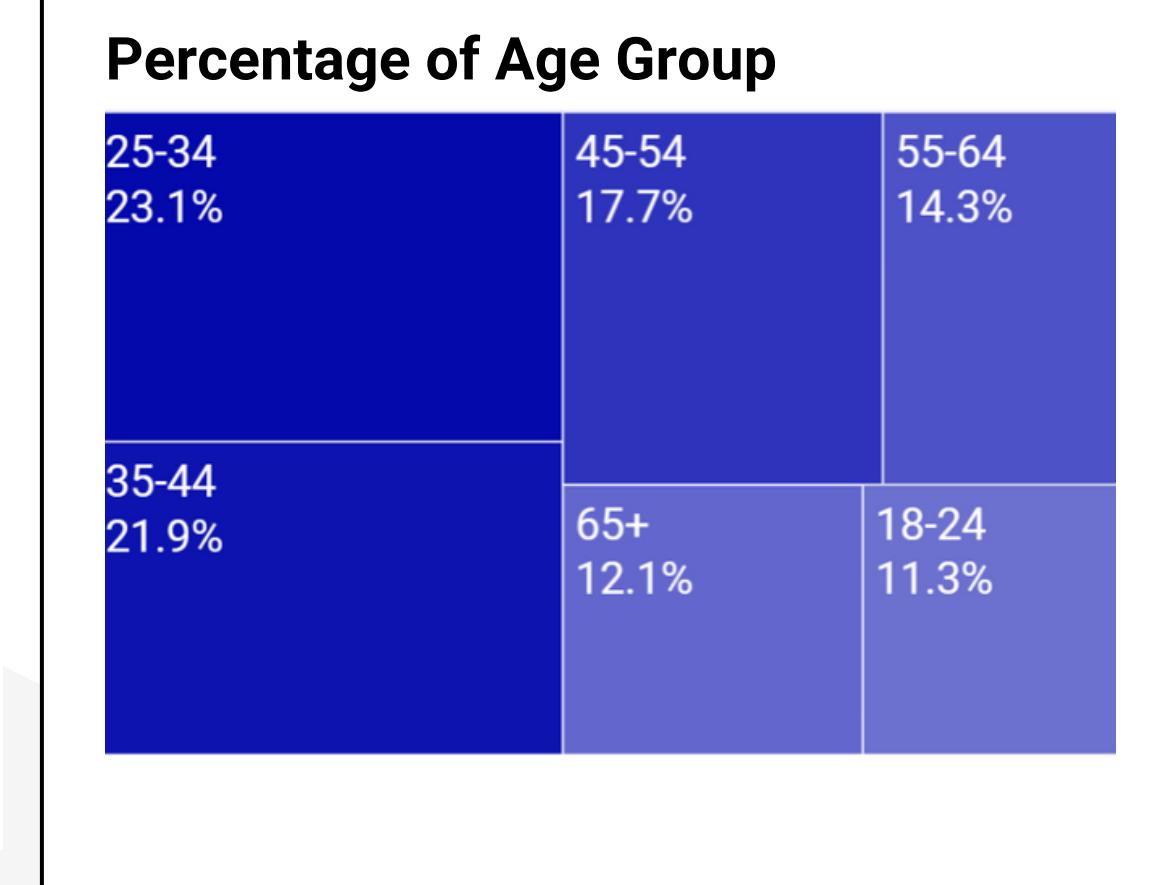
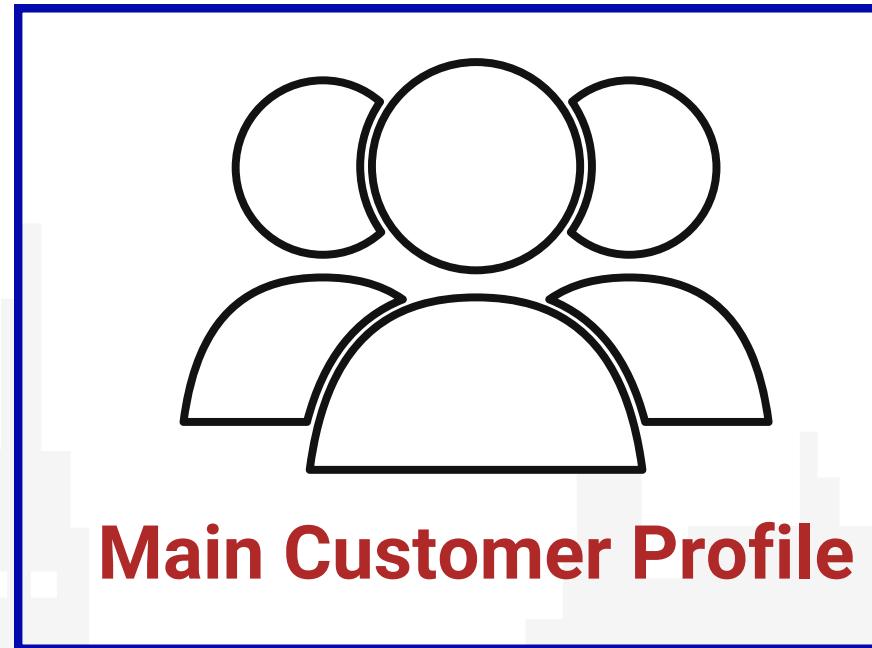
Sale Performances

Q4 2022 increased more powerfully compared to Q4 2021 thanks to the increase in FOB racing.

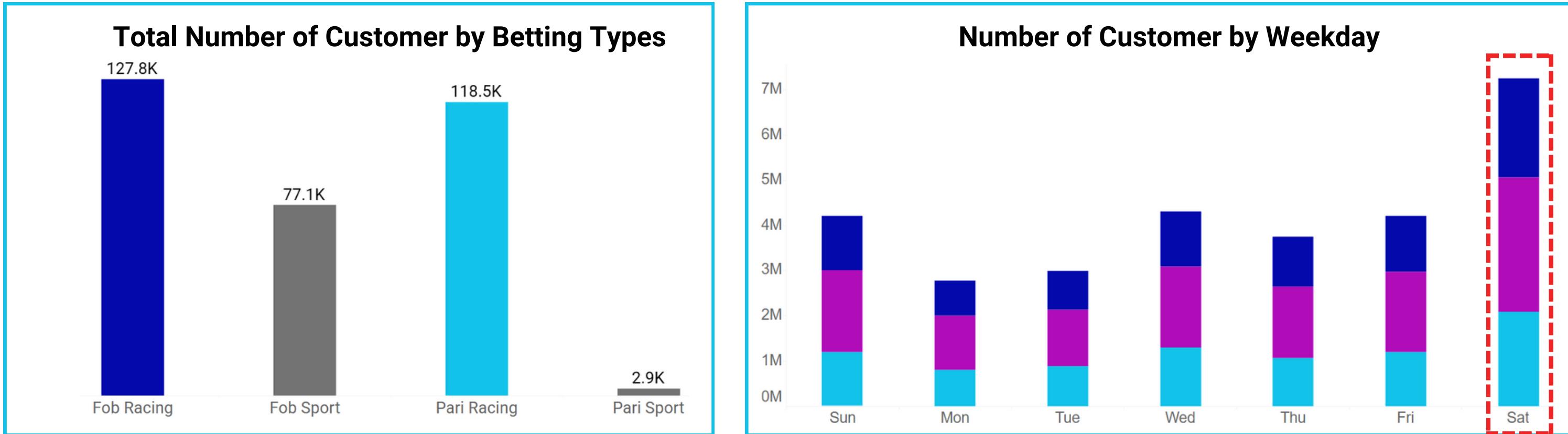


- The growth of the same quarter in 2021 and 2022 fluctuated within the range of 3-10%, however, it always **grew strongly in Q4** of each year.
- Remarkably, Q4/2022 had the **strongest growth** thanks to FOB Racing (169M AUD), and **significantly exceeded** the total turnover of FOB Racing in Q4/2021 by 12.7%.

Overview Customer Demographics in 2021 - 2022



Customers favored Racing type bets with wagering number of customer surging on Saturdays.



- Customers demonstrated **a strong preference** for FOB Racing and Pari Racing bets.
- Customers tended to place more bets on **Saturday** by **41% to 62%** compared to other days of week.

Increase the number of matches of Racing genre games and launch special events every Saturday.

Source: freebetoffers.org.uk, timesofmalta.com

RFM ANALYSIS

WA TAB FIRM

Detailed Rule Engine Layer - Techniques

	Segmentation	Overall Score	Behavior
Feature used to score segment	Champion	11-12	<ul style="list-style-type: none"> Last returned under 1 week. High frequency: more than 100 times. High monetary: more than 7.000 AUD.
Techniques	Loyal	9-10	<ul style="list-style-type: none"> Last returned under 1 month. Slightly High frequency: more than 40 times. Slightly High monetary: more than 3.000 AUD.
Overall Score	About to sleep	6-8	<ul style="list-style-type: none"> Last returned more than 1 month Medium frequency: more than 10 times. Medium monetary: more than 800 AUD.
	Hibernating	4-5	<ul style="list-style-type: none"> Last returned more than 3 months. Low frequency: more than 3 times. Low monetary: more than 100 AUD.
	Lost	3	<ul style="list-style-type: none"> Last returned more than half year. Super low frequency: under 3 times. Super low monetary: under 100 AUD.

Customer Retention Rate and Demand for Return

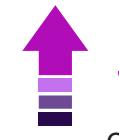
Number of customer

Period 2021 - 2022

 **145K** Customers

In 2021
111K Customers
In 2022
116K Customers

2022 customers increased

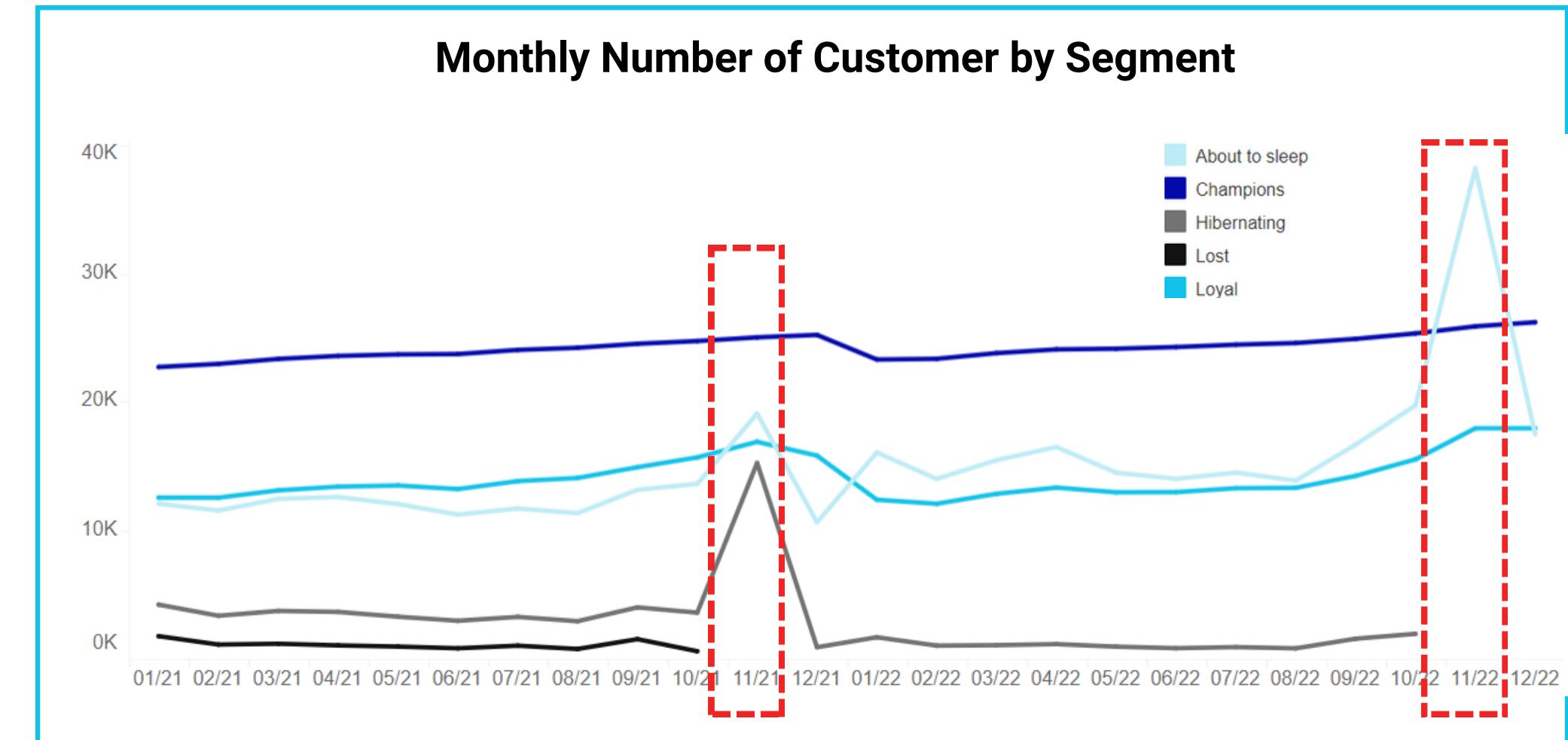
 **5,4 %**
Compared to 2021

This indicates stability and possibly even growth in its customer retention efforts.

- **Champions** and **Loyal** stayed steady during two years.
- **About to Sleep** surged 40% in November 2021 and peaked (+93.5%) in November 2022.
- **Hibernating** increased by 323% in November 2021 but disappeared by November 2022.
- No **Lost customers** since November 2021.

 Customer retention rate was higher during festive occasions.

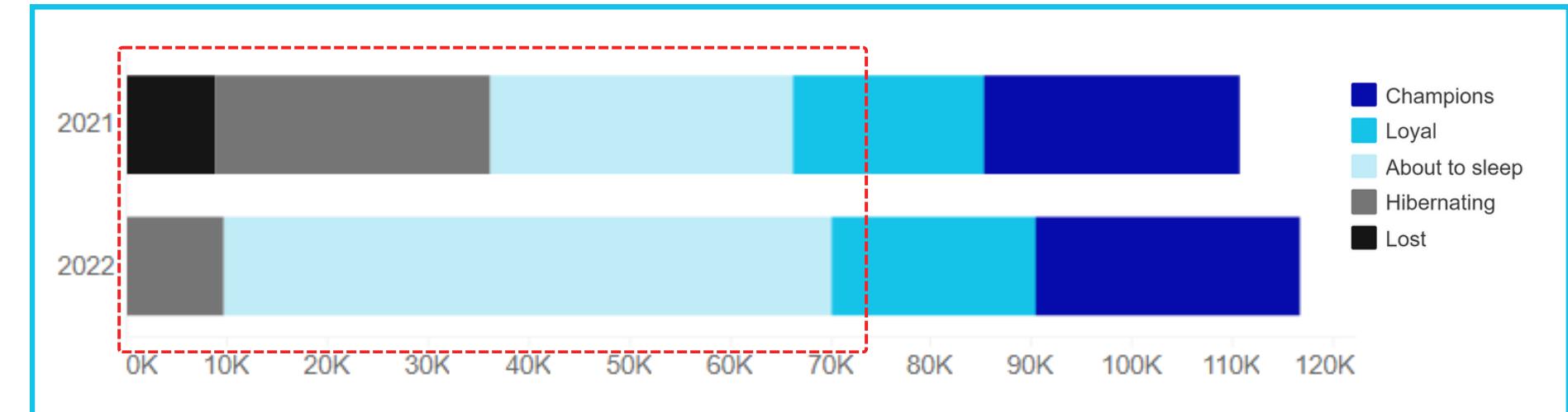
 Increase advertising during holidays could be an effective way to boost sales.



Customer Segmentation by RFM Model

While composition of Champion & Loyal remained the same, strong shifts from Hibernating and Lost in 2021 to About to sleep in 2022 were seen.

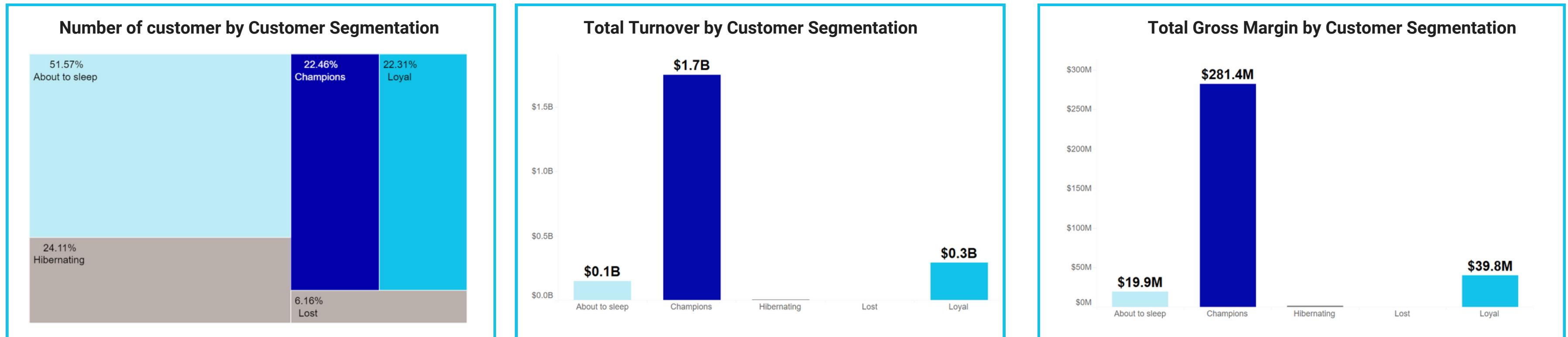
- WATAB showed strong **Champion** customer retention with **2/3 customers** remaining in 2022.
- Meanwhile, **56%** of **Loyal** remained and upgraded to **Champion**, and the rest degraded to **About to sleep** and **Hibernating**.
- **Lost, Hibernating, and About to sleep** had higher churn with **68.3%, 48.7%, and 25%** respectively (not appeared in 2022).
- However, **Lost & Hibernating** in 2021 saw a notable shift toward **About to sleep (+50%)**, showing a good signal.



Segment 2021	Segment 2022						Grand Total
	Champions	Loyal	About to sleep	Hibernating	Lost	Churn	
Champions	75.1%	15.3%	8.6%	0.3%	0.0%	0.6%	100.0%
Loyal	20.5%	36.1%	34.3%	2.0%	0.0%	7.1%	100.0%
About to sleep	3.6%	13.3%	51.7%	6.4%	0.0%	25.0%	100.0%
Hibernating	0.8%	2.5%	40.2%	7.8%	0.0%	48.7%	100.0%
Lost	0.6%	1.9%	20.8%	8.4%	0.0%	68.3%	100.0%

Customer Segmentation by RFM Model

Champions accounted for only about 22% number of customers but they contributed nearly 80% of the revenue and created 82% gross margin for WA TAB.

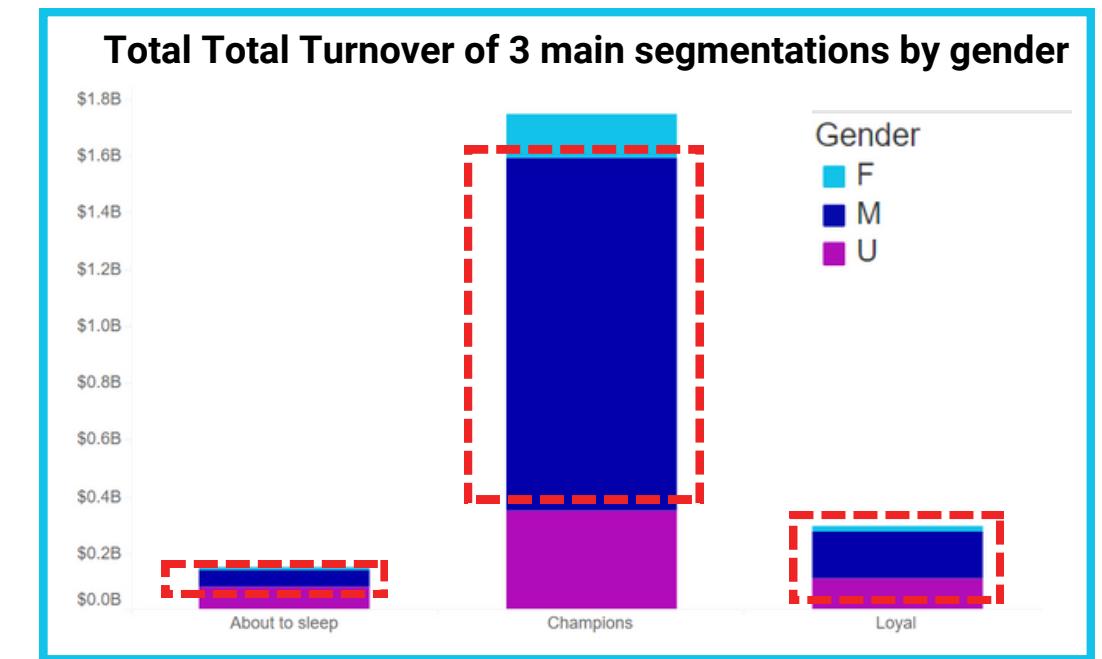
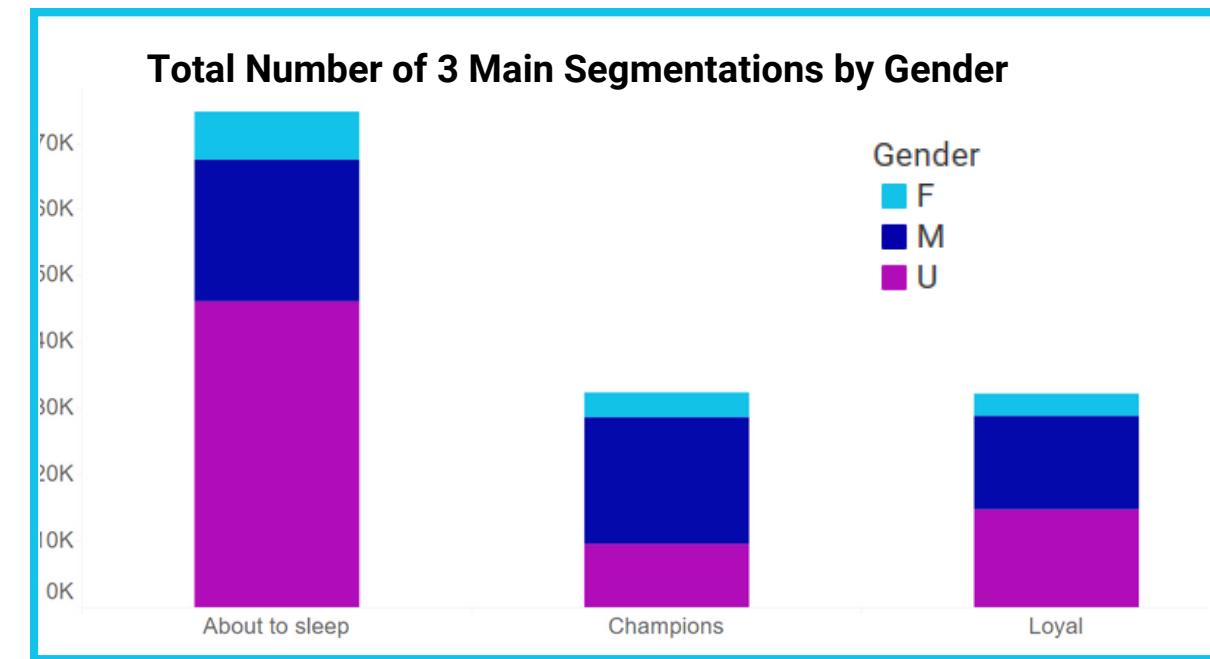
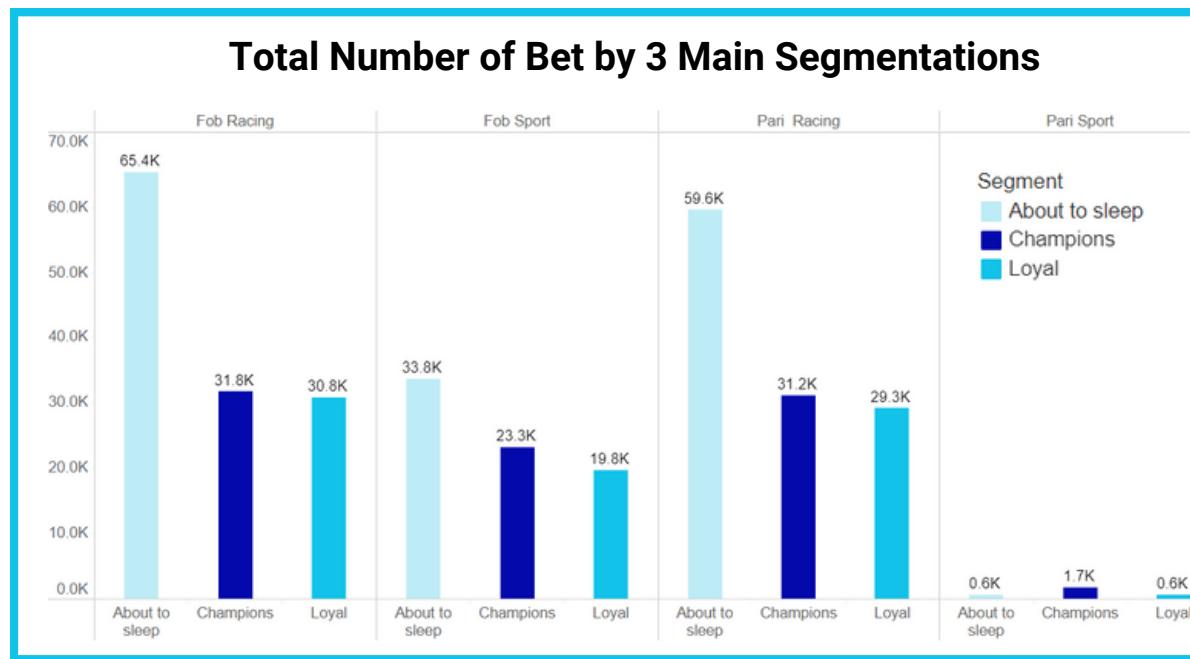


- **Champions, Loyal and About to sleep** drive 95% of turnover and 99.54% of profit.
- In contrast, **Hibernating** and **Lost**, with over 30% of the customer base, contribute less than 5% of turnover and only 0.47% of profit.
- Likewise, **About to Sleep** had over 50% of the total customer, only generated 6% revenue due to their low spending patterns.

WA TAB should focus on these 3 groups: Champions, Loyal and About to Sleep, in order to increase revenue.

3 Main Segmentations by RFM Model

Champions and Loyal wagered the most money, but About to Sleep placed the highest number of bets.

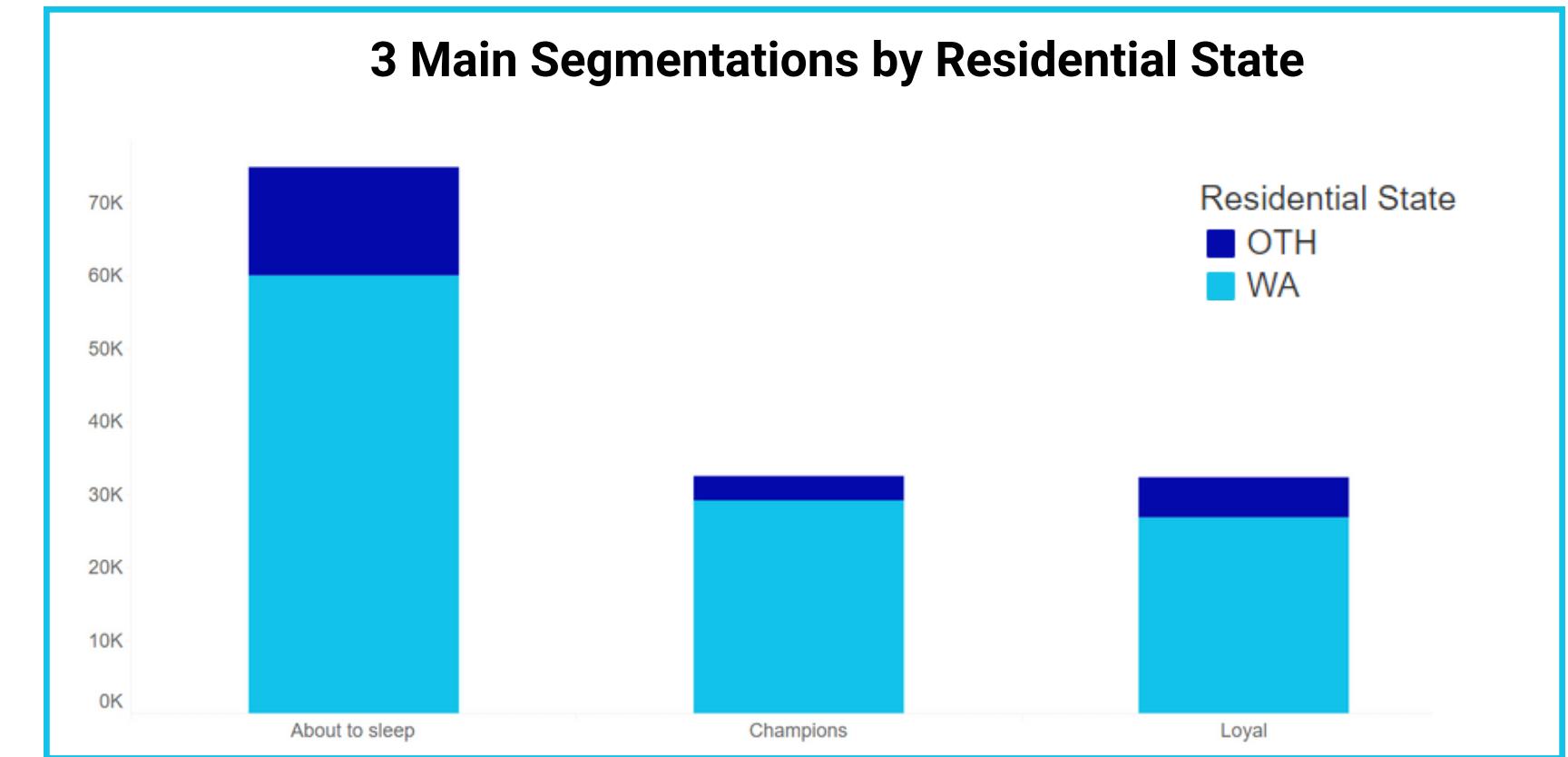
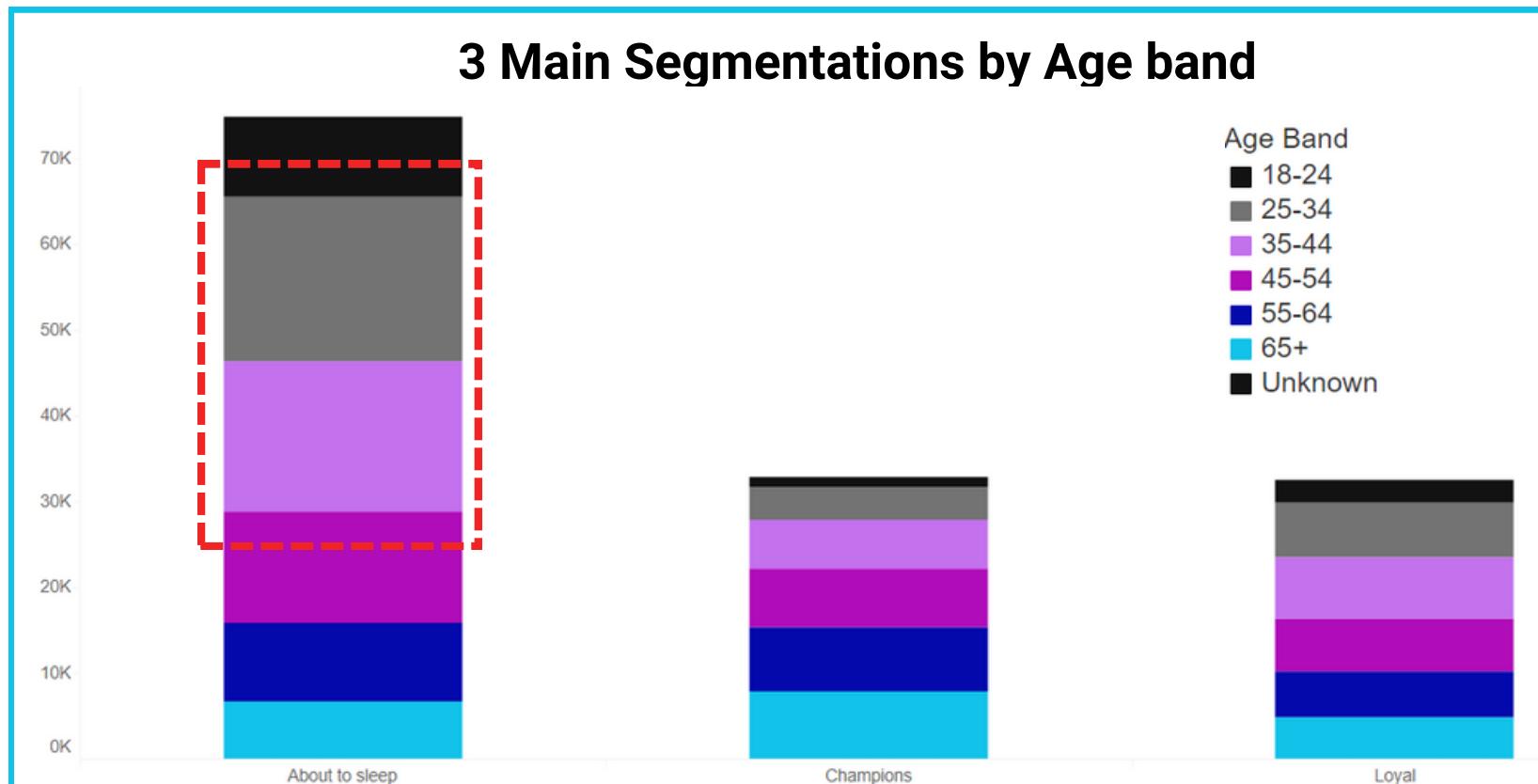


- **Champions** had highest bet value of each game , followed by **Loyal**, although each only placed number of bet equal to 50% of About to Sleep's total.
- **About to Sleep** had the greatest betting volume in each category, especially notable in **FOB Racing (65.4K)** and **PARI Racing (59.6K)**.
- Moreover, **Male customers** dominated over Female customers in 3 groups and **spent more on the betting** compared to female customers.

Offer high-risk, high-return bet in dog and horse racing to boost male customer spending and excitement.

3 Main Segmentations by RFM Model - Customer Profile

About to sleep had a different age distribution and a greater proportion residing in 'Other' compared to the main customers.



- **Champions** and **Loyal** showed an even distribution across age groups except for 18-24 years old, while **About to sleep** were mostly **25-44 years old**, who are Gen Y and Gen X.

- While 90% of customers were from WA, **About to Sleep** in "Other" makes up 19.82% of its segment, 5 times higher than **Champions** and triple than **Loyal**.
- **Loyal**, likely due to them having choices than WATAB.

Focus on About to Sleep customers to increase retention rate.

RECOMENDATION

WA TAB FIRM

Recommendation: Special events: Super Happy Weekend!



TARGET: INCREASE USER ENGAGEMENT



ACTIVITIES	REASON
Provide customer support services including call center and online support.	The number of customer recorded on Saturdays was highest in the period
Collaborate with Beer brands to cater the customer need.	<u>Global Drug Survey 2021</u> , stated that Aussies well and truly got on the beers in 2020
Host live performance with pop stars for festive events.	Pop music is the most popular music genre in Australia (<u>Music Habits survey</u>)

Recommendation: Reward for Each Segments

All customers

- Update **Weekly Market Report**
- **Livestream** pre-game analysis and prediction.
- **Push event notifications** on the website and app.
- **Provide Trending Bet**
- **Top 10 Dividend Payer Honor**

Benefit	Champions	Loyal	About to Sleep
High risk high return bet	+	+	
Everyday Exclusive Consultant	+		
Monthly spending reward bonus		+	
Refferal program			+
Mailing Promotion Voucher with LIMITED EXPIRED DAY			+

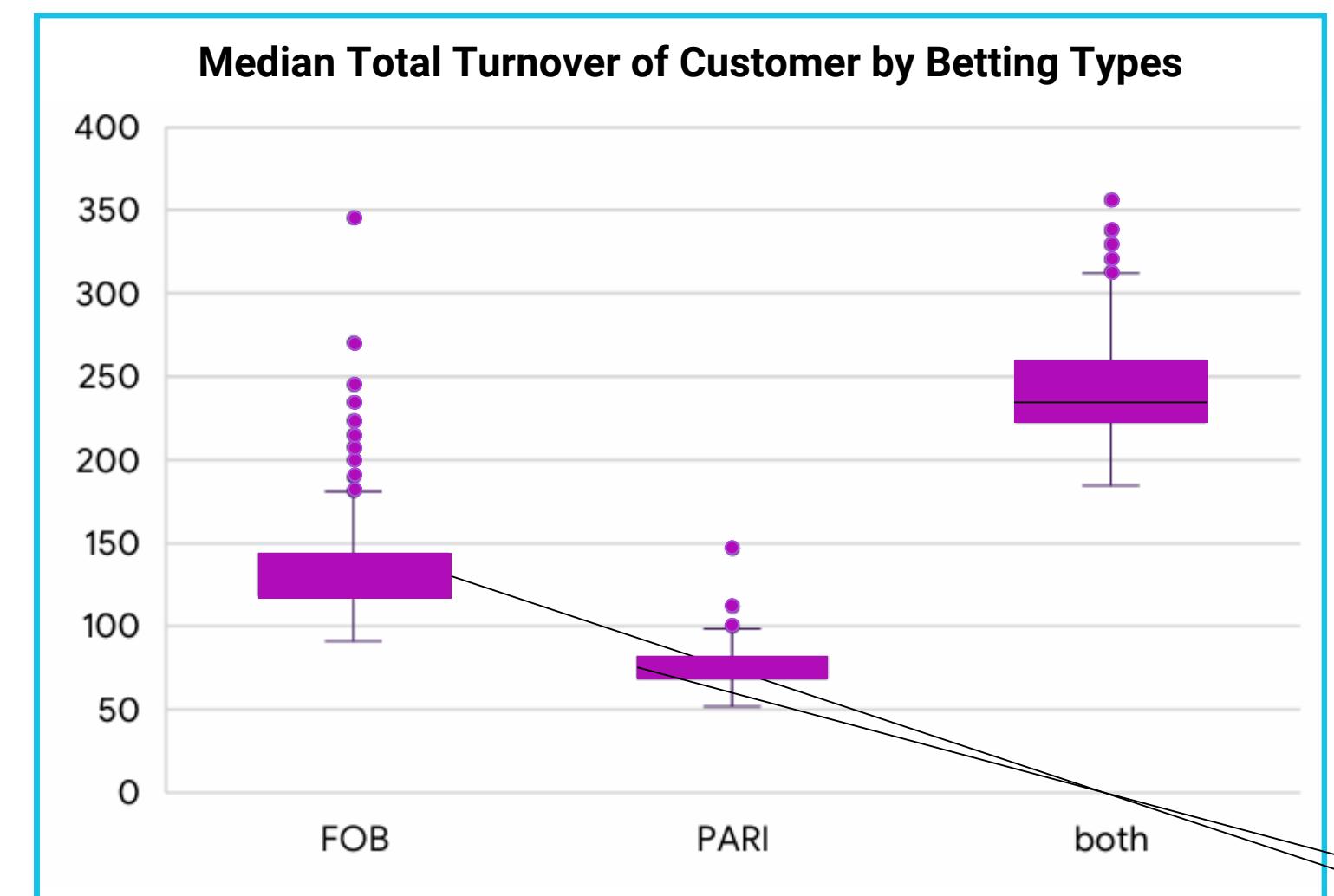
Recommendation: Reward for Champions and Loyal

High-risk, high-return bet can be developed by offering multi-bet to drive customer spending.

A multi bet allows you to combine several different selections within a single wager and every selection you make must prove correct for the multi to pay out.

- Customers who bet **Both Fixed odds and Pari-mutuel** on the same day typically spent more money than those who only bet one form.

Promoting multi-betting (combining fixed odds and pari-mutuel bets in a single ticket) can potentially drive customer competitiveness of Champion and Loyal.



New Product - In-running Bet

The value per transaction of in-running bet is 12% higher than that of fixed-odds wagering, but WATAB has not yet deployed this bet type.

In-running betting refers to placing bets on horse races or sports matches after they have begun and up until their conclusion.

- In 2022, while fixed-odds wagering held a 26% global market share, live/in-play betting captured 20% – ranking third and demonstrating its **significant growth potential**.
- Moreover, **36%** participants that bet in-play were more likely to gamble at least once per day whereas only **13,4%** was recorded by non in-play bet.

► **In-play betting offers businesses a potentially profitable opportunity thanks to its consistently engaged customers**



Type of bets	Gamble Frenquency Once a Day
In-play Bet	36%
Non-in-play Bet	13,4%

Source: [Research](#)

Model Description

Objective	<ul style="list-style-type: none">• Finding the optimal model.
Data and Features	<ul style="list-style-type: none">• Time range: 2021-2022.• Source: WA TAB
Model Development	<ul style="list-style-type: none">• ARIMA• SARIMA• Prophet
Train/Test Data	<ul style="list-style-type: none">• Train Set - First 20 months (2021-01-01 to 2022-08-31)• Test Set - Last 4 months (2022-09-01 to 2022-12-31)
Output	<ul style="list-style-type: none">• Forecast Turnover

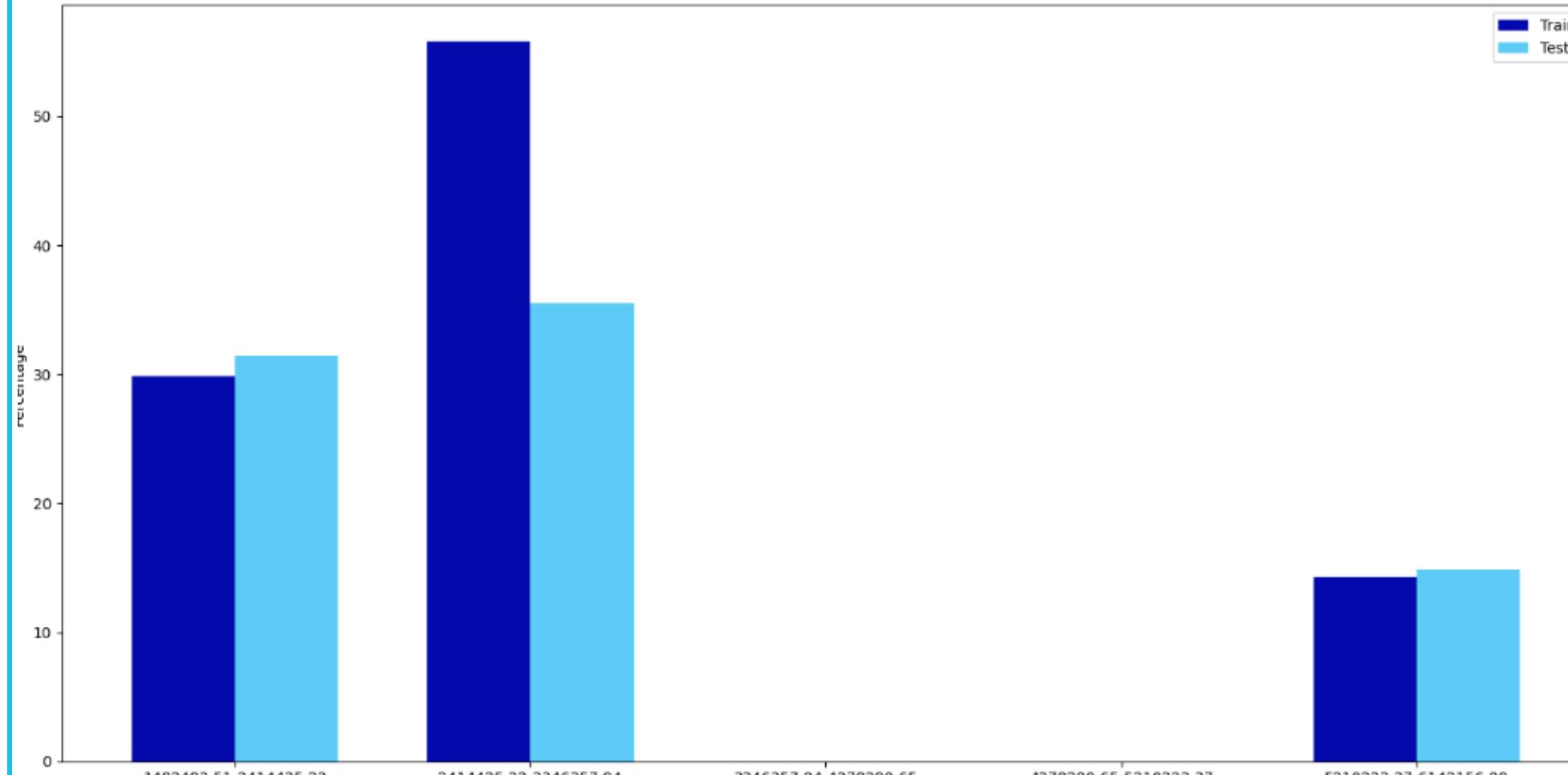
Performance (MAPE)

Learning Algorithm	MAPE Training	MAPE Testing
Prophet	20.48%	22.25%
ARIMA	45.61%	48.32%
SARIMA	44.22%	46.59%

Model Selection	Reason	Data Transformation	Overfit Handle Techniques
Prophet	Base on the MAPE compare to other models.	<ul style="list-style-type: none"> Min Max Scaler, Standard Scaler. 	<ul style="list-style-type: none"> Early stopping L2 Regularization

Monitoring

Population Stability Index (PSI): 0.0930



PSI

Measure the stability of a predictive model's predictions.

< 0.25

Can continue with current model.

= 0.25

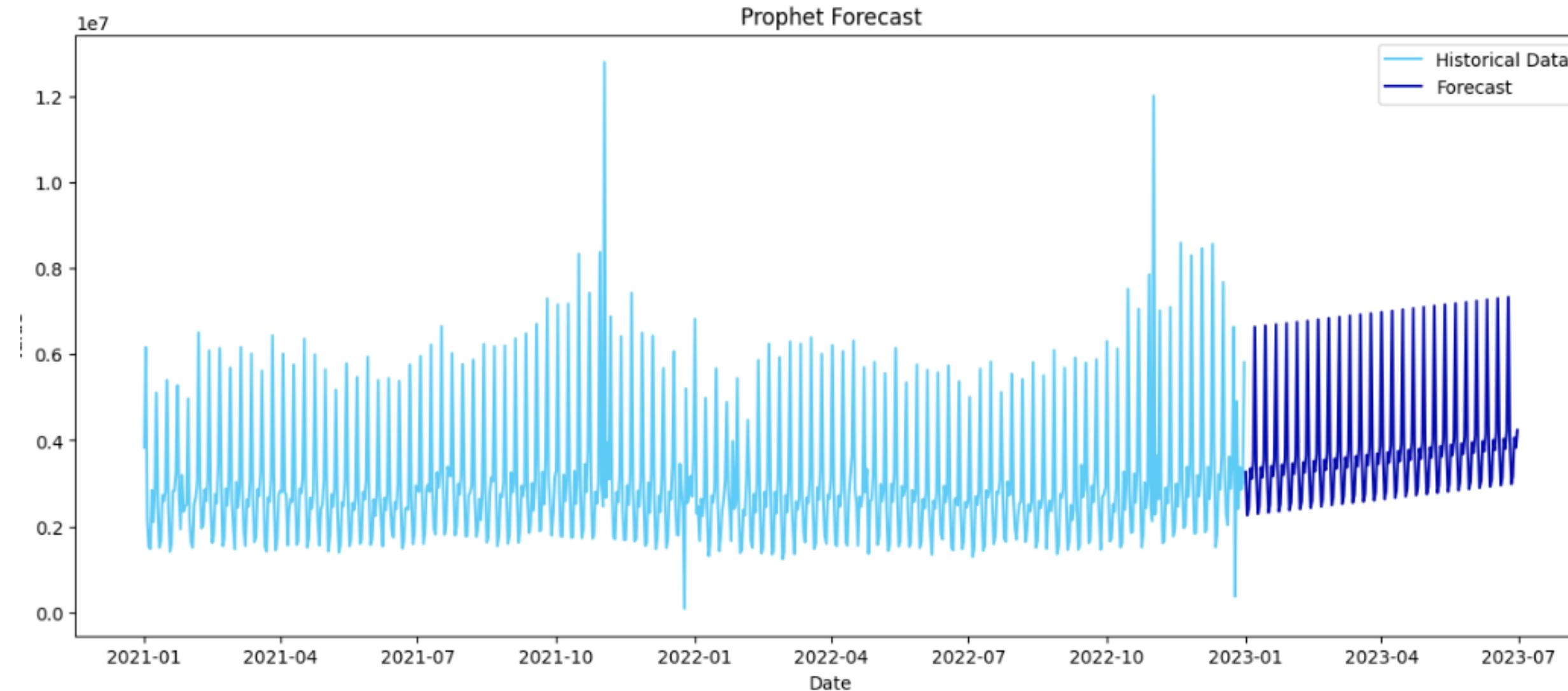
Retraining may be required.

PSI: 0.0930 Show that the model works quite well in prediction.

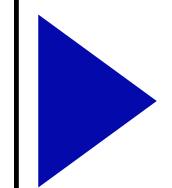


Deployment

Total turnover in 2021-2022 and forecast in first 6 months 2023



Based on Prophet model, we forecast the revenue in the next 6 months:

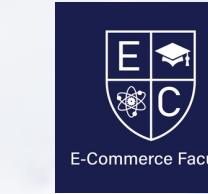


697 MILLION USD



34 %

Compared to the first 6 months in 2021 & 2022 (519M and 516M respectively)



**THANKS FOR WATCHING
TEAM ECOBYTE**