Gunosy

# FY2020/5 Financial Results for Q1

Gunosy Inc.
First Section of The Tokyo Stock Exchange
(Stock Code: 6047)
October 15, 2019

# INDEX





Gunosy

1

# Financial Results for FY2020 Q1

# Financial Highlights (1/2)

Gunosy

## Overall summary

1. Consolidated net sales were 3.87 billion yen and operating income was 230 million yen.
**Growth of net sales achieved** despite income decline. (QonQ comparison)

2. Advertising expenses (non-consolidated) were 850 million yen,
**the highest investment level ever**. (650 million yen in the previous quarter)

3. The number of MAU of the three major media and the impressions of ADNW
**achieved record highs**.

4. News Pass downloads **exceeded 10 million**.

## Summary by media

Despite unstable business growth of subsidiaries (“digwell” and “VIDPOOL”),
**“Gunosy” and “News Pass” recorded solid growth**.

Gunosy (non-consolidated)
Subsidiaries

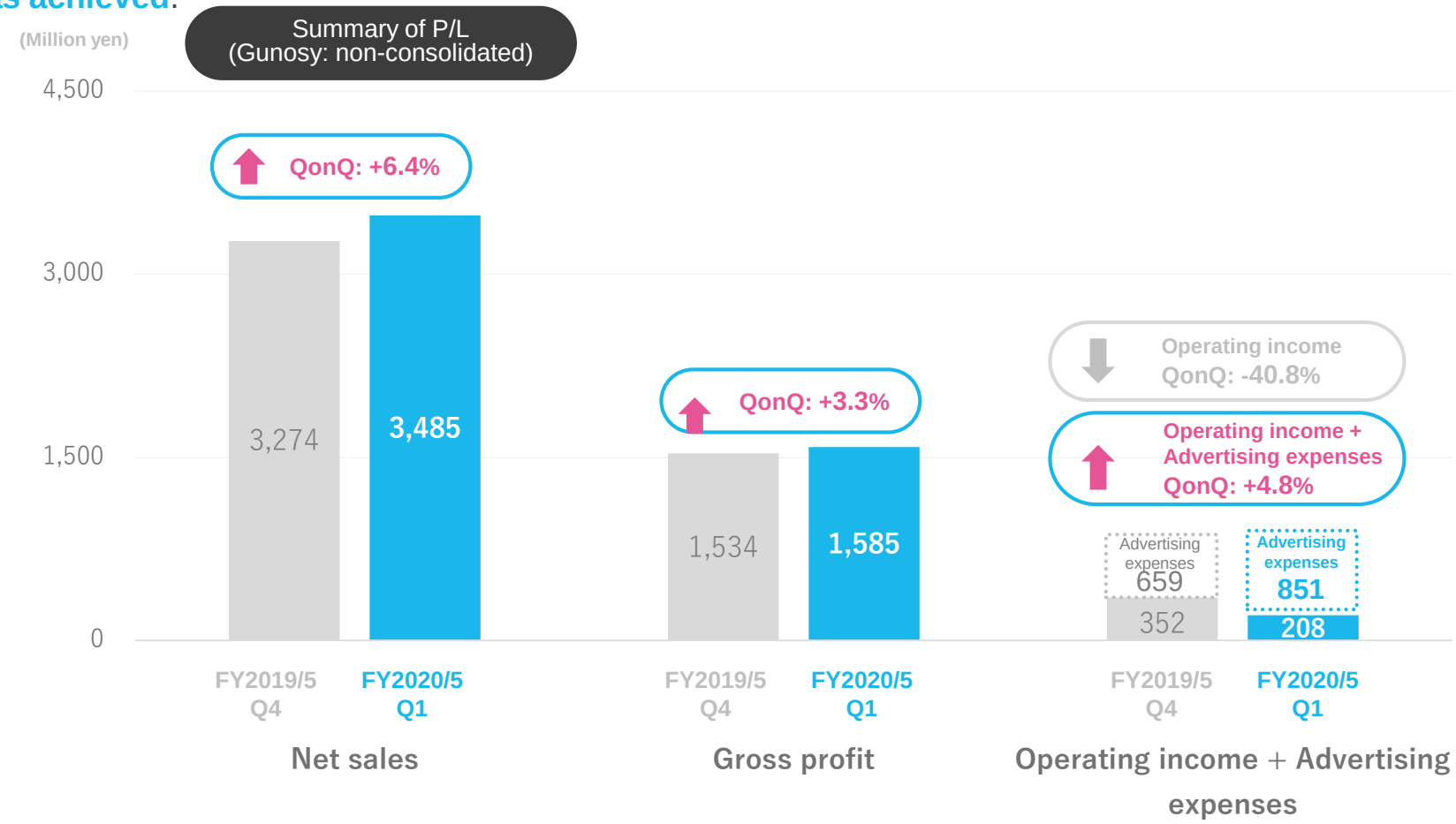
| Gunosy | News Pass | LUCRA | ADNW | Subsidiaries (digwell & VIDPOOL) |
|---|---|---|---|---|
| ↗ **Regrowth** | ↗ Growth | ➡ Hold | ↗ Growth | ↘ Decline |
| Strategic investment under way | | Hold down investment | | |

# Financial Highlights (2/2)

Gunosy

As a result of continued aggressive investment, **non-consolidated net sales and gross profit of Gunosy marked steady growth as planned**.

While Operating income declined 40.8% QonQ to 208 million yen, when making comparison **based on operating profit before strategic investment** with advertising expenses added back, **+4.8% growth was achieved**.



# FY2020/5 Consolidated Results for Q1

Gunosy

While the impact of changes in the advertising market environment since Q3 of FY2019/5 remains, **sales growth** achieved QonQ in the current period, despite income decline, supported by steady growth of active users.

(Million yen)

| | FY2020/5 Q1 | QonQ comparison | | YonY comparison | |
|---|---|---|---|---|---|
| | | FY2019/5 Q4 | QonQ | FY2019/5 Q1 | YonY |
| **Net sales** | 3,879 | 3,835 | 101.2% | 3,700 | 104.8% |
| **Operating income** | 232 | 446 | 52.1% | 792 | 29.3% |
| **Operating margin** | 6.0% | 11.6% | - | 21.4% | - |
| **Ordinary income** | 218 | 445 | 49.0% | 792 | 27.5% |
| **Net income attributable to owners of parent** | 195 | 292 | 67.0% | 544 | 35.9% |

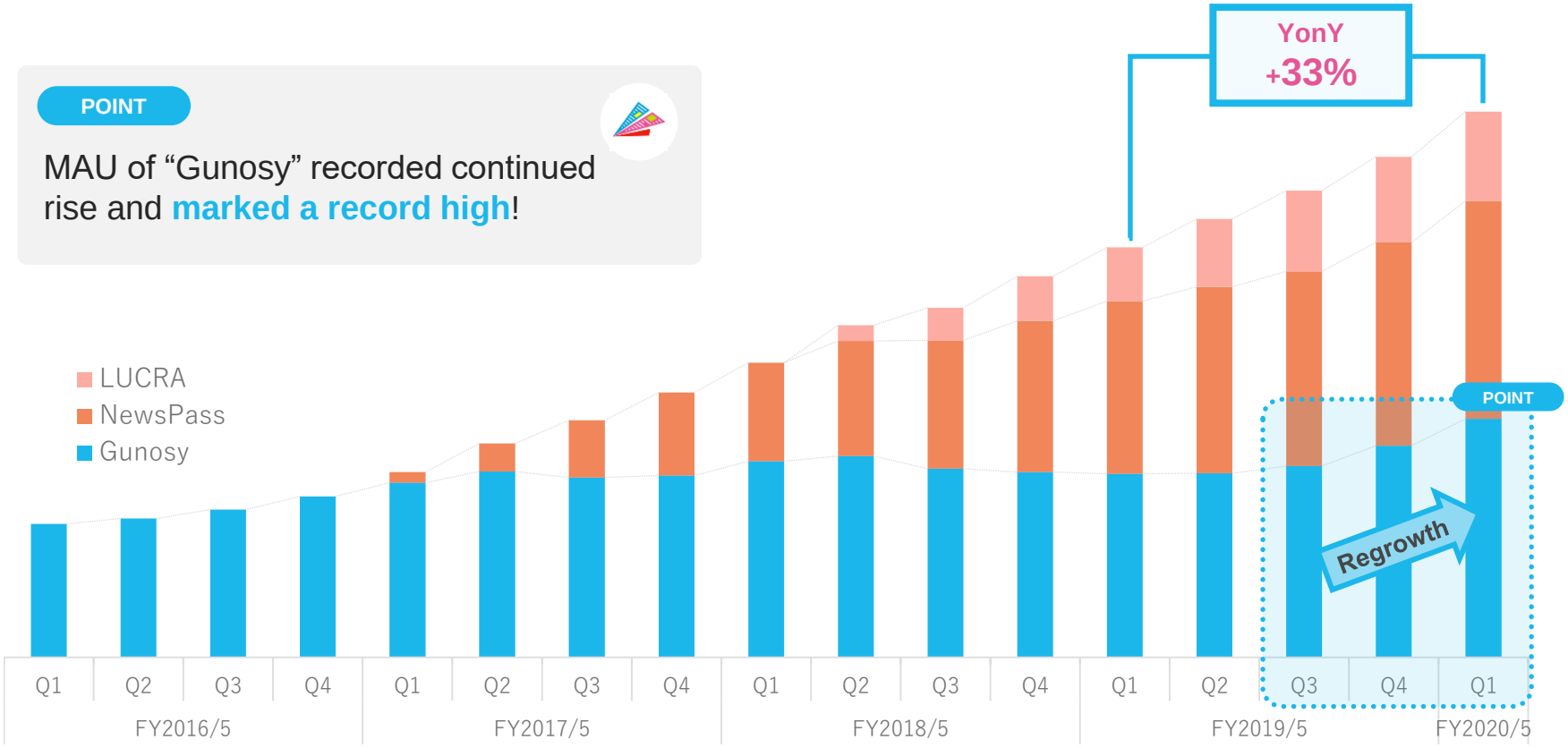
# Total Number of Active Users (MAU)*1

Gunosy

Total MAU in the current quarter increased by **33% YonY, achieving a record high** (“Gunosy” **increased by 30%**). MAU of “Gunosy” continued to grow due to successful injection of advertising expenses focusing on cost effectiveness. “News Pass” and “LUCRA” also continued to grow steadily.

**POINT**

MAU of “Gunosy” recorded continued rise and **marked a record high**!




*1 Average for each quarter of MAUs (monthly active users) of “Gunosy”, “NewsPass” and “LUCRA”.

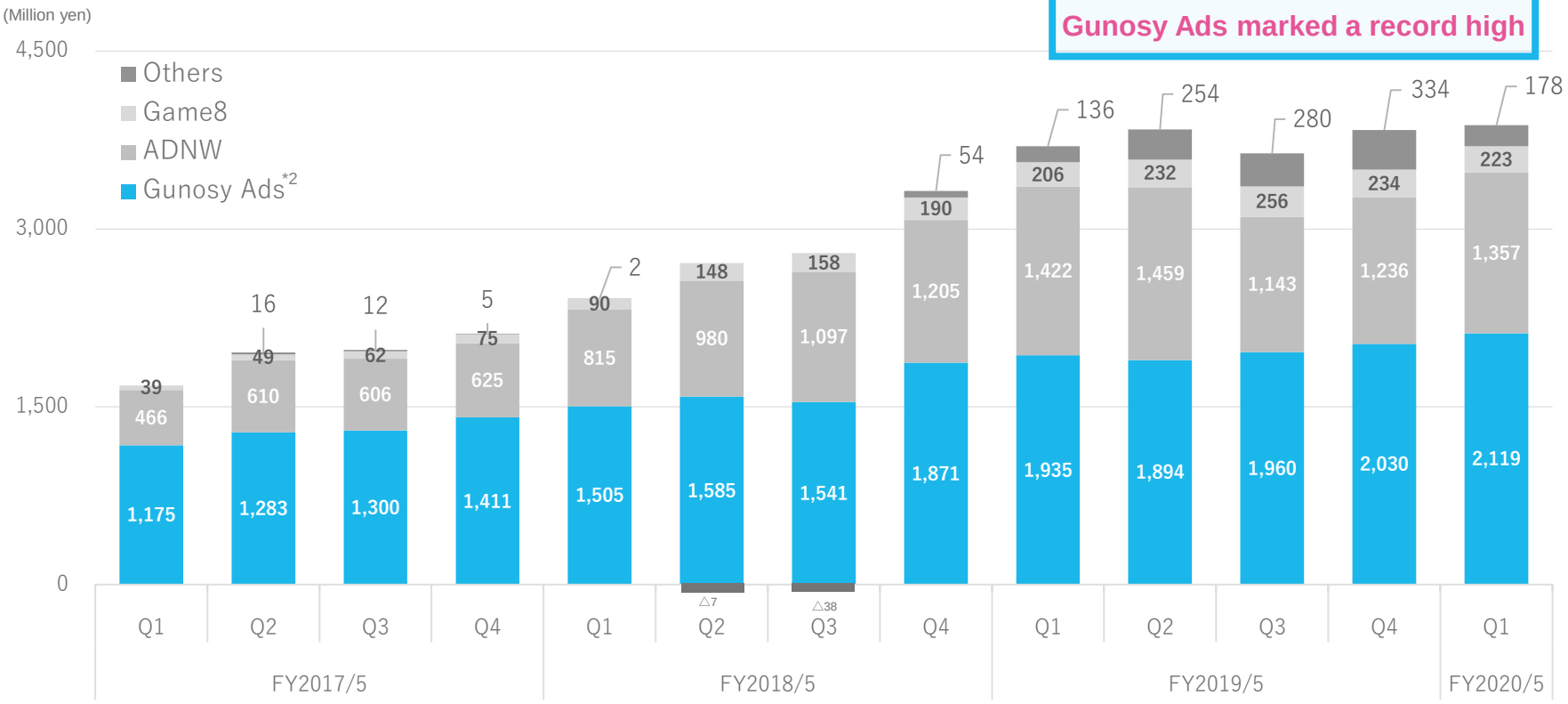
# Breakdown of Net Sales *1

Gunosy

Gunosy Ads **contributed to sales growth** by improving the algorithms and aggressive advertising activities, which led to steady user acquisition. (+4% QonQ)

ADNW is **recovering from the sales decline recorded in FY2019/5 Q3**. (+10% QonQ)

**FY2020 Q1**
**Gunosy Ads marked a record high**




*1 Sales of Gunosy Ads, ADNW and Game8 are presented on a non-consolidated basis. Internal trade adjustments are included in Others

* 2 Sales of Gunosy Ads are the total of “Gunosy”, “NewsPass” and “LUCRA”.

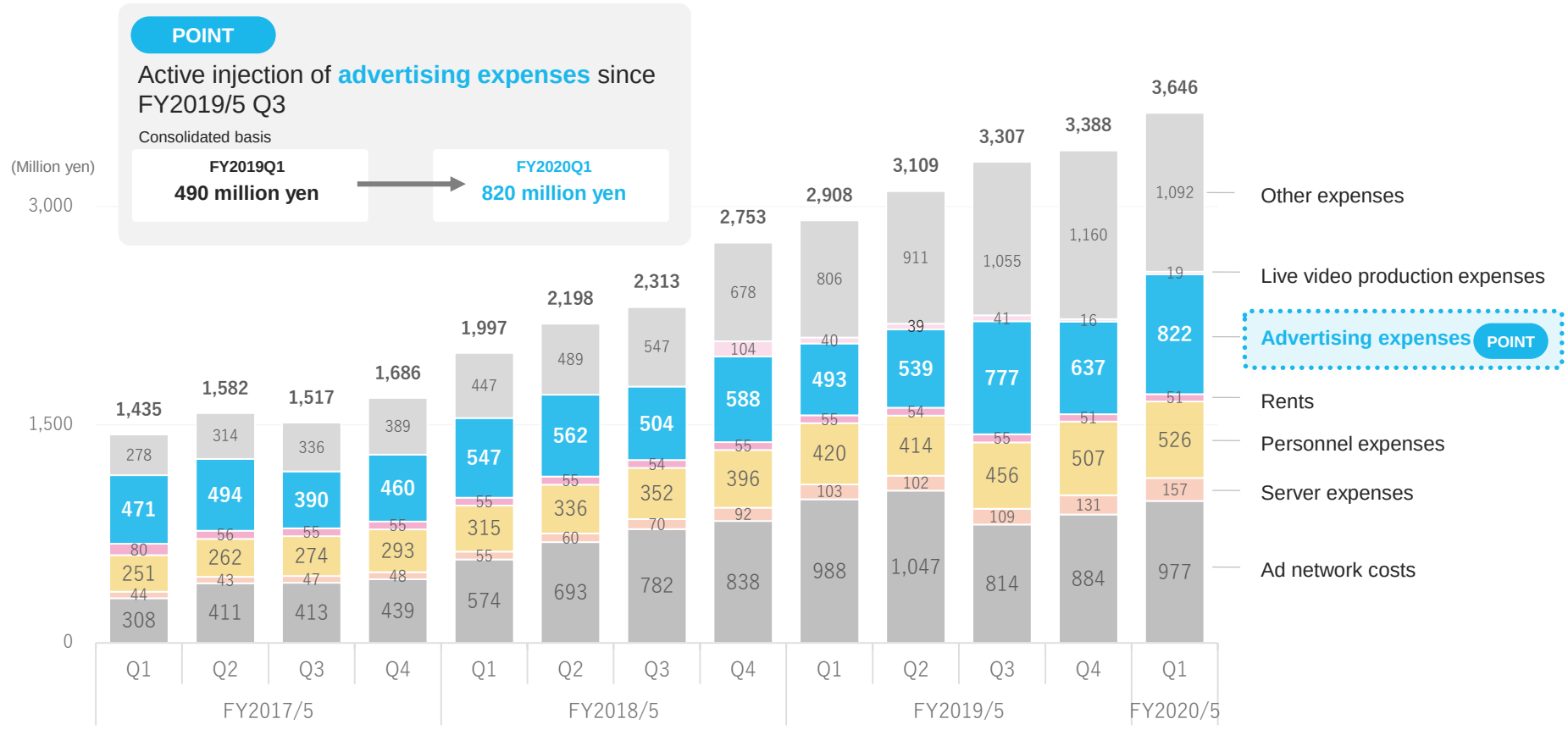
# Cost Structure

Gunosy

## Active injection of “advertising expenses” to promote coupon since FY2019/5 Q3.

Along with sales growth of ADNW, “Ad network costs” also increased QonQ.

In “Other expenses”, despite increased costs for revenue sharing with KDDI, media expenses for digwell declined.



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# FY2020 Outlook

# FY2020/5 Results Forecast

Gunosy

Progression rate against H1 sales forecast is steady at 51.2%.

While aggressive injection of advertising expenses is expected in Q2, **upward revision was made to H1 forecast** of operating income considering the fact that H1 forecast (60 million yen) was already exceeded by 170 million yen as of the end of Q1. **No revision made to the full-year forecast** as progress is expected as in the initial forecast.

(Million yen)

| | FY2020/5 Q1 | H1 forecast | | | | Full-year forecast | |
|---|---|---|---|---|---|---|---|
| | | FY2020/5 Q1 Initial forecast | Progression rate | 2019/10/15 Corrected forecast | Progression rate | FY2020/5 Full-year forecast | Progression rate |
| **Net sales** | 3,879 | 7,579 | 51.2% | 7,579 | 51.2% | 17,054 | 22.7% |
| **Operating income** | 232 | 60 | 387.4% | 160 | 145.0% | 1,000 | 23.2% |
| **Operating margin** | 6.0% | 0.8% | - | 2.1% | - | 5.9% | - |
| **Ordinary income** | 218 | 39 | 559.9% | 117 | 185.5% | 960 | 22.7% |
| **Net income** attributable to owners of parent | 195 | -12 | - | 110 | 177.2% | 565 | 34.6% |

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# Business Overview by Division

# Business Overview by Division

Gunosy

## Media

P14 - P18

- In the “Gunosy” and “News Pass” businesses, MAU continued to build up steadily while maintaining profitability.
- In "LUCRA", preparations are under way to improve profitability.

## Advertising

P19 - P21

- ADNW is on a recovery track from the impact due to changes in the market environment.
- Businesses of two of our subsidiaries (“digwell” and “VIDPOOL”) still remain unstable. We will try to rebuild them with new services.

## Investment

P22

- The investment destination was selected smoothly and the investment was executed.
- Invested in Faircent, an online financing brokerage service platform in India.

We have been **continuously implementing various campaign plans**, including the coupon program that started in FY2019/5 Q3. As a result, MAU steadily increased in the current quarter in the current period while maintaining profitability, **hitting a record high**.

“Gunosy Research” was released as new content.

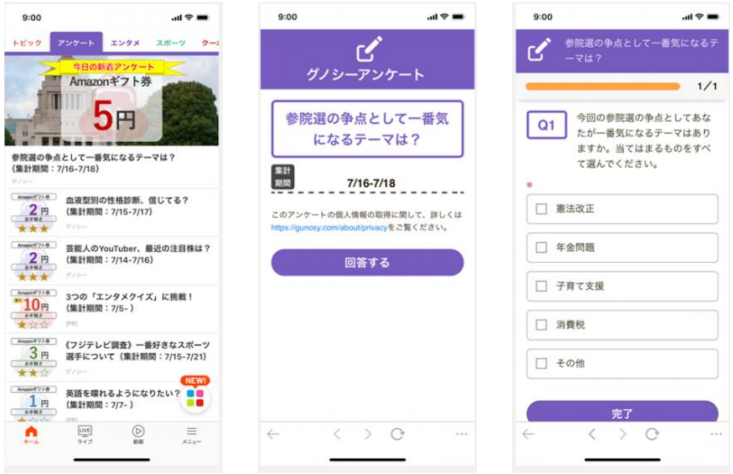
## "McDonald's free coupon" campaign

Campaign with “News Pass” “LUCRA” and “Otokul”


**[1st phase]**
August 14, 2019 10: 30 - September 10, 2019 23:50

**[2nd phase]**
September 20, 2019 10:30 - October 17, 2019 23:50

## Released “Gunosy Research”, a product useful for conducting questionnaires

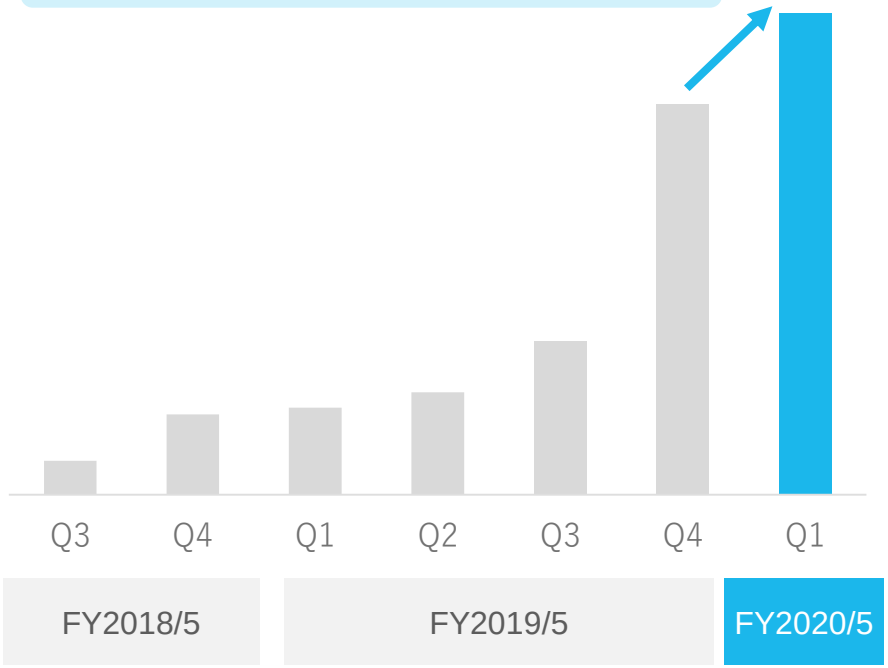



“Gunosy Research” is a new product that enables users to conduct research easily using our own questionnaire tool. Its applications range from polls, corporate marketing research, and brand lift survey for effective advertising.

**We will further enhance our in-house production video contents.** As consumption of content other than news articles increases, we will steadily accumulate know-how for operating video content for the 5G era.

## Changes in the scale of users who have completed viewing video

Each content (sports, news, entertainment) contributes to the increase of number of video views




## Video contents broadcast

### In-house production

グノシーQ × QuizKnock

Distribution of new program by collaboration of "Gunosy Q" and "QuizKnock" started

Held a soccer quiz event involving major soccer clubs

3LDK ラブ♥or¥マネー

"3LDK"
"Love & romance reality show" x "Money Game"
Totally new type of variety show program
**Over 10 million views in 3 weeks**
('19 Sept. ~)

Media

# News Pass

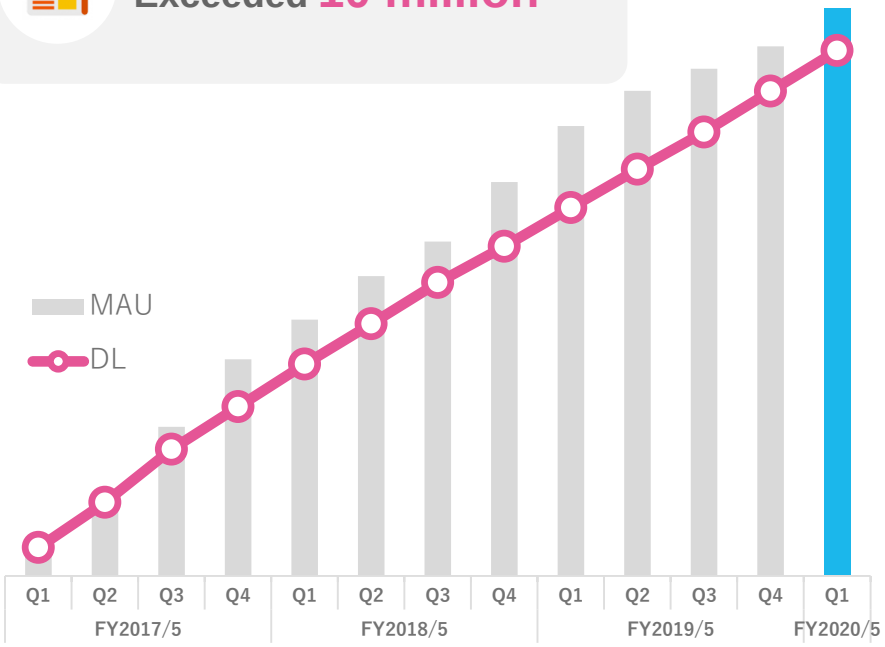
Since the release on June 1, 2016, the user base has been steadily expanding and downloads have **exceeded 10 million**.

**MAU is also steadily increasing** supported by day-to-day improvements in algorithms and content.

## MAU and DL

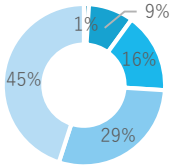
NewsPass downloads

**Exceeded 10 million**




## User Attribute

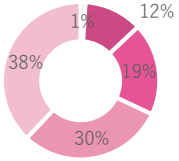
**Male** **59%**




Strong support from the 40s and 50s

teens 20s 30s 40s 50s

**Female** **41%**




Strong support from the 40s and 50s

teens 20s 30s 40s 50s

## Content Enhancement

**Commemorating the release of the video tab,**
**campaign held, giving away**
**10 million wallet points**

- Note: Please refer to the press release for details of the campaign (https://gunosy.co.jp/news/180)

Media

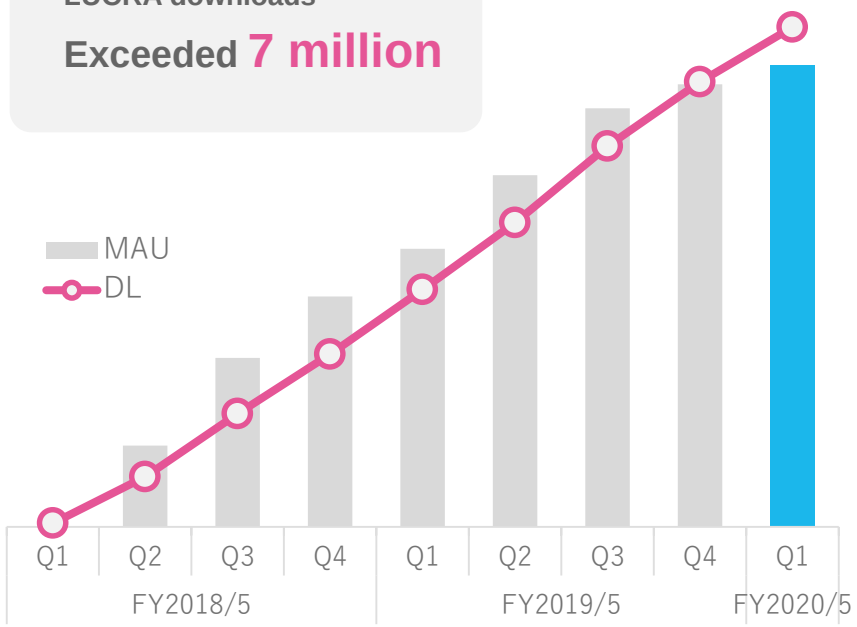
# LUCRA

Although LUCRA has been growing steadily until Q1 of FY2020, with over 7 million downloads, **enhancing the client base of advertisers is an issue** to be addressed. Currently, we are **restraining investment for user acquisition**, and are considering various measures to **enhance profitability as a media**.

## MAU and DL

**LUCRA downloads**

**Exceeded 7 million**




## Summary of FY2020/5 Q1

Although we are currently refraining from active investment, steady progress being made in both MAU and DL.

## Recent prospects

Recognizing “enhancement of advertisers base” as a priority issue,
**various measures are being considered.**

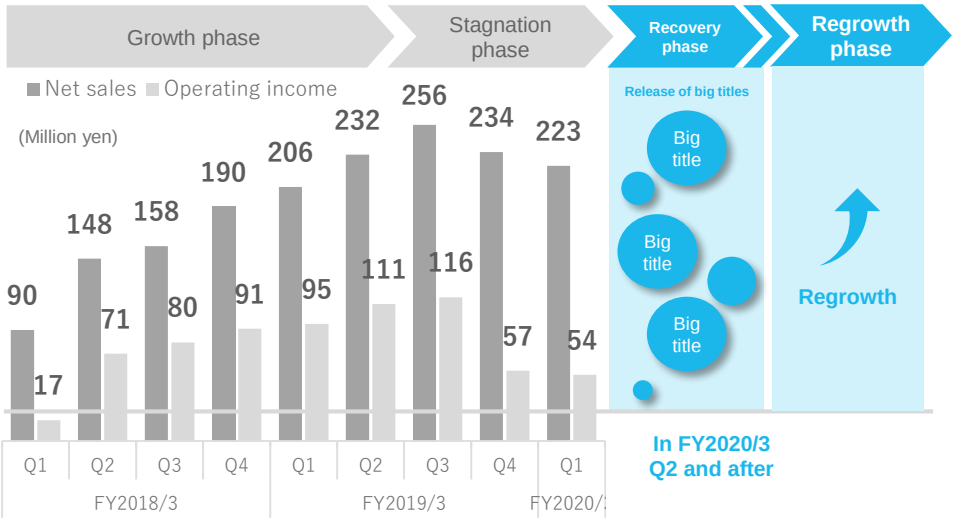
- **Increase sales per user**
- **Increase advertiser retention rate**
- **Improve investment effect**

Media **Game8**

Continuing from the previous quarter, sales in FY2020/3 Q1 were affected by sluggish growth of advertising rate per unit due to market conditions. **The Performance recovery**, however, is expected in game walk-through, because of release of big game titles concentrating in Q2 - Q3. FY2020/3 positioned as a period of preparation for sustained growth. In order to achieve medium- and long-term growth, we will **actively expand content other than game walkthrough.**

## Results *

| | | QonQ |
|---|---|---|
| **Net sales** | **¥223 million** | **-11 million (95.3%)** |
| **Operating income** | **¥54 million** | **-0.3 million (94.3%)** |




* Non-consolidated results (before consolidated adjustment)

## Measures for sustainable growth

- Create new business teams and invest in recruiting
- Consider undertaking overseas business, M&As, investments, alliances and other initiatives proactively
- Planned content enhancement of non-game domain media “CLABEL”

**Measures for recovery of business performance**

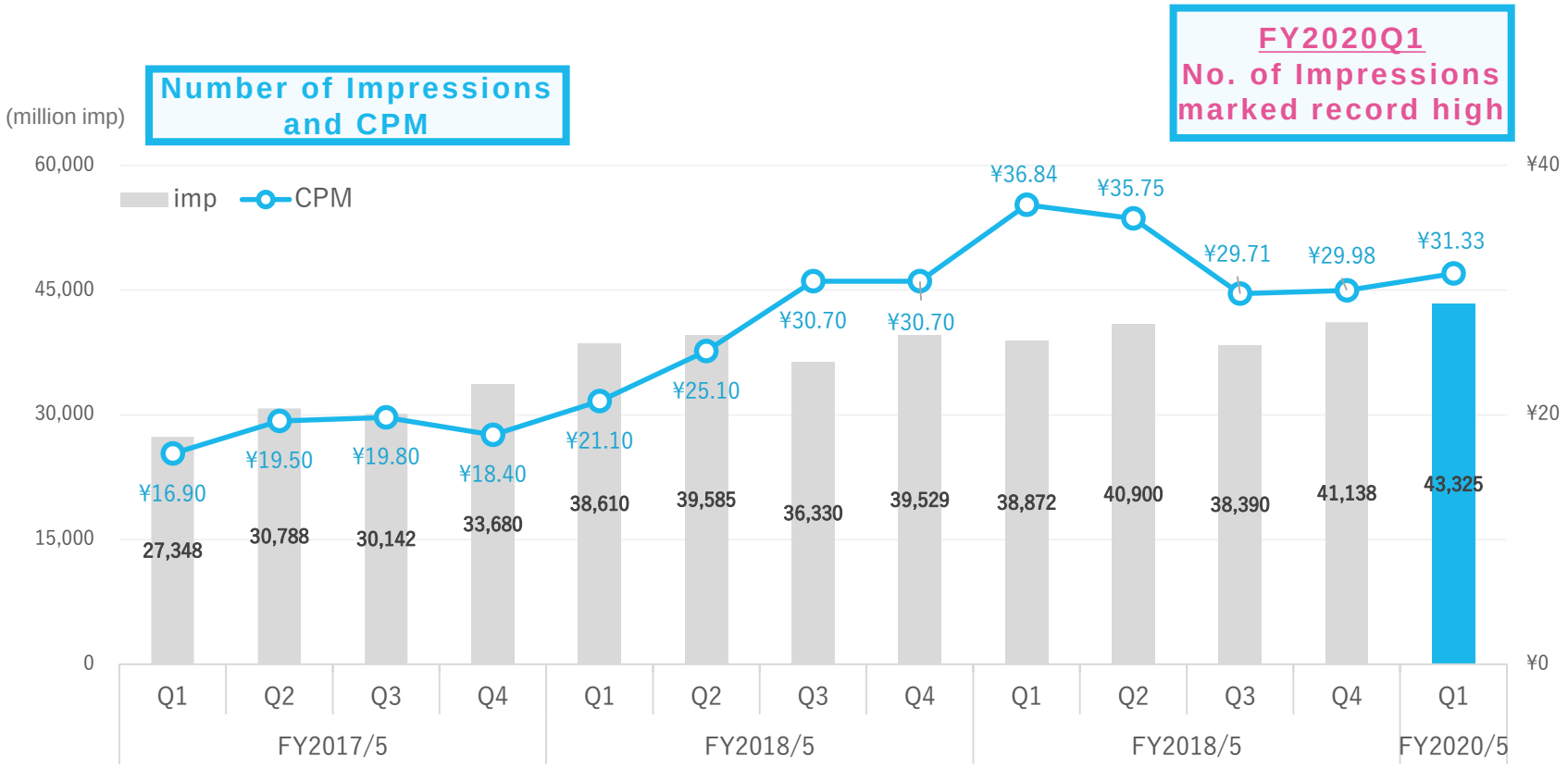
- **Preparation for release of big game titles scheduled this fall**

Advertising

# Ad Network (ADNW)

Gunosy

The impact of the environmental change in the advertising market has settled down, and CPM (Cost Per Mile) is on the recovery track. Advertising inventory (impressions) recovered from seasonal decline in Q3 and **hit a new record high.**

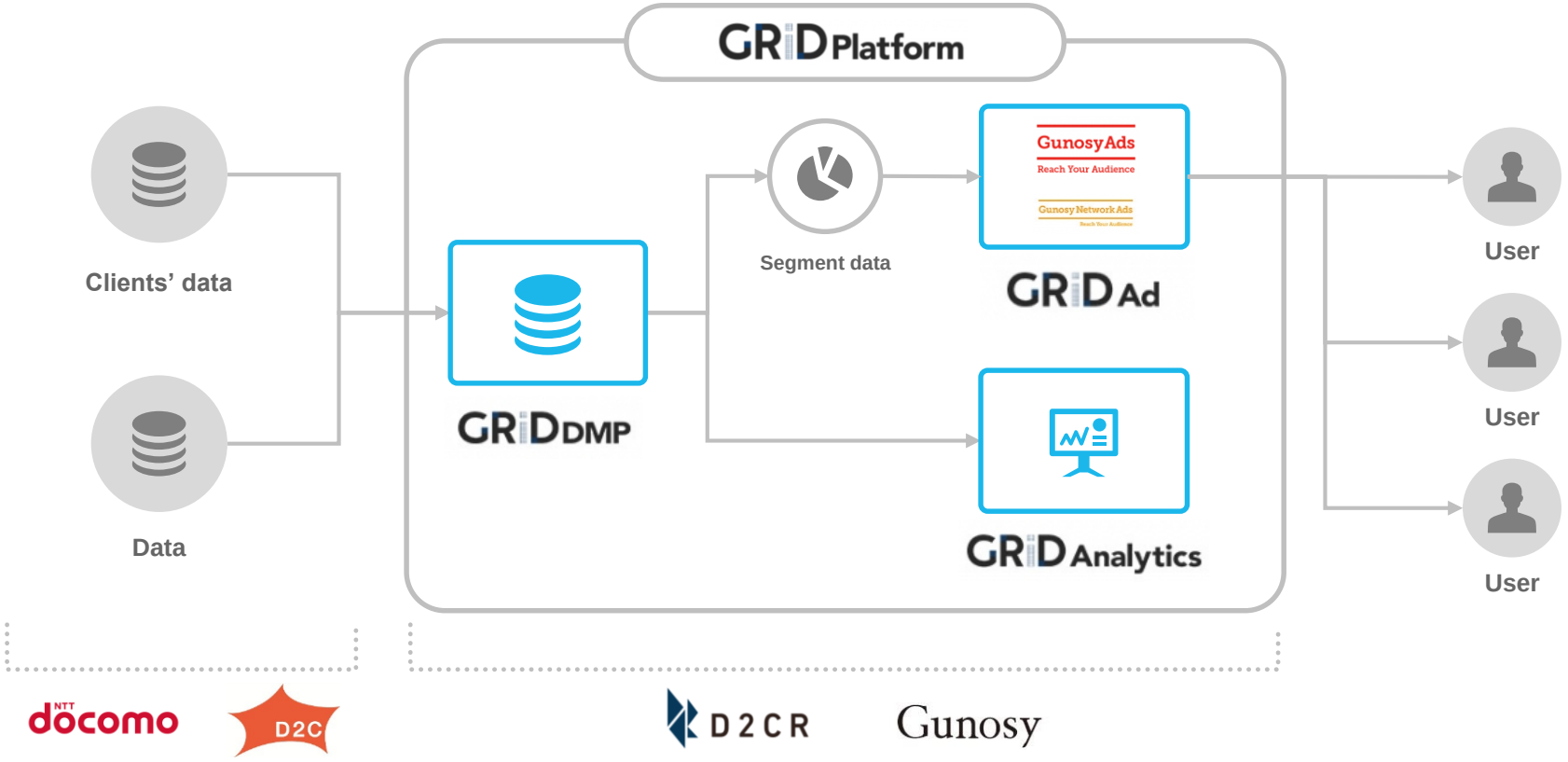



* CPM: Cost Per Mille; unit price per 1,000 views of advertisements

Advertising

# Launched “GRID Platform for docomo Ads”

This is an ad network we launched in collaboration with D2C R and D2C, that uses data including member information owned by NTT DoCoMo. Distribution available on Gunosy Ads / Gunosy Network Ads. It enables **proper advertising to users** by accumulation of acquired data on GRID DMP and utilization of analysis results **in a form that does not identify individuals**.




Press release: https://gunosy.co.jp/news/184

Advertising

# Subsidiaries (digwell and VIDPOOL)

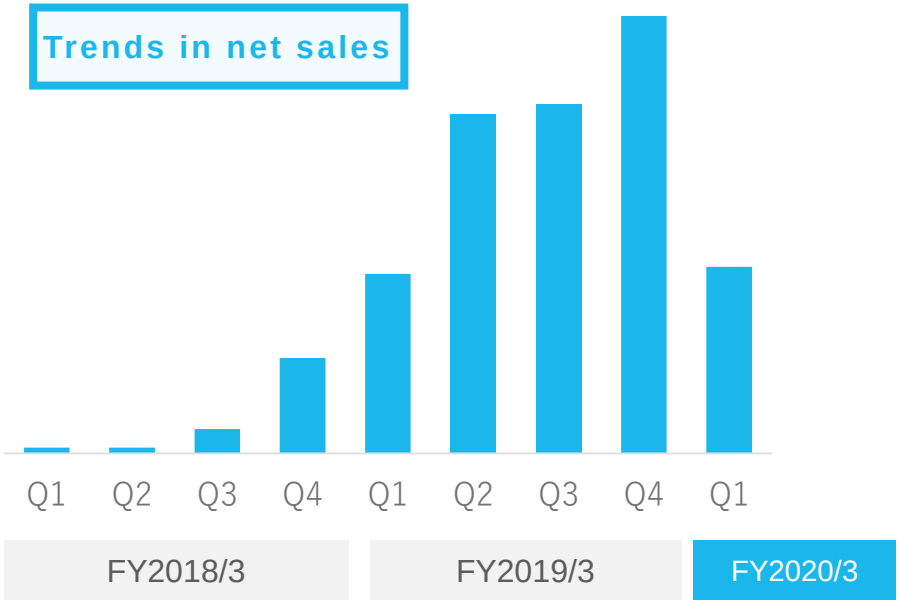
Gunosy

- **digwell**'s business marked sales and profits declines, which was affected by the sudden changes in the market environment. The advertising business for the WEB was particularly difficult. Currently focusing on the advertising business for APPs expecting recovery
- **VIDPOOL** will focus on the media rep business for CyberAgent, aiming to expand sales of Gunosy advertising products through VIDPOOL.

## digwell

Pay-for-performance advertising service

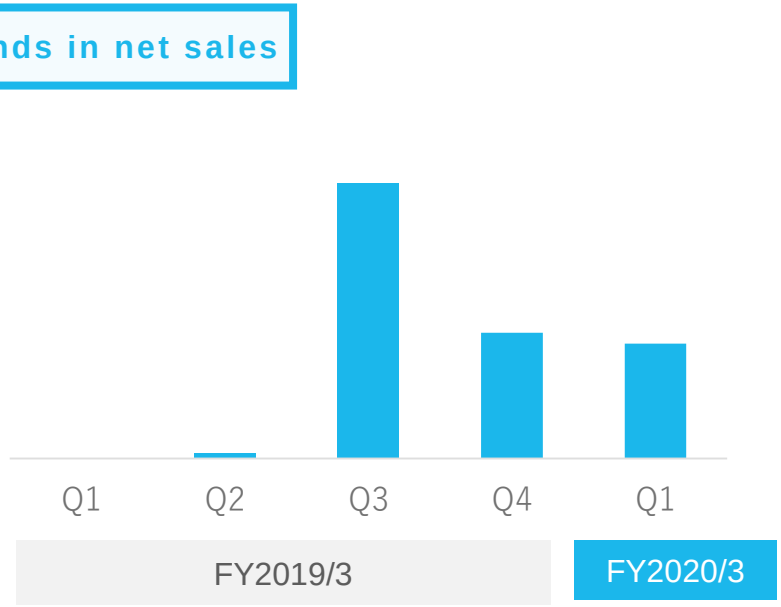
**Trends in net sales**




## VIDPOOL

Video ad network service

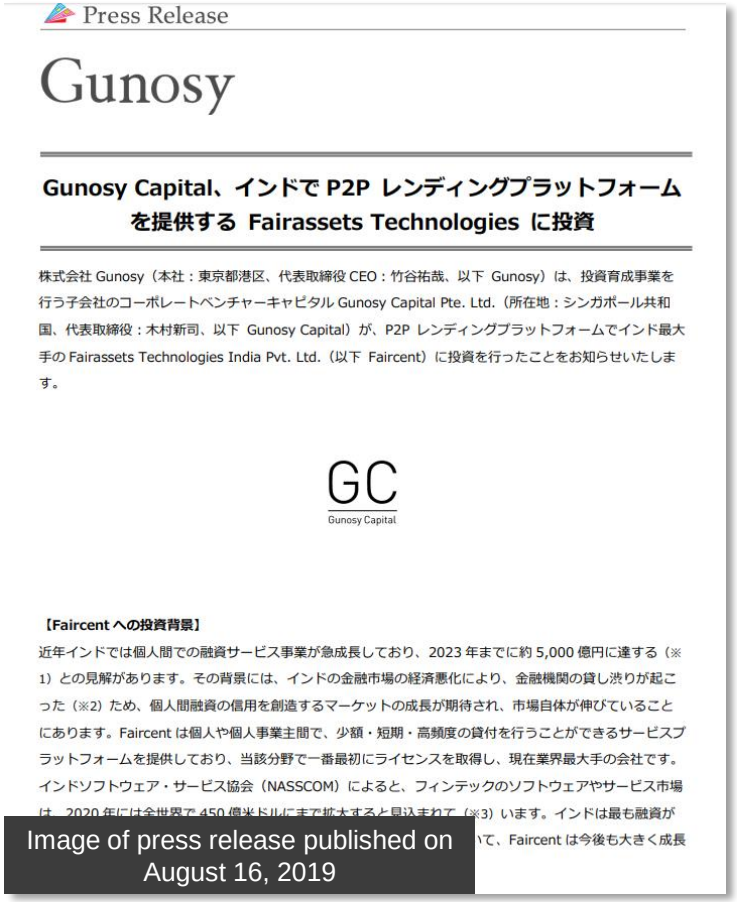
**Trends in net sales**



Investment

# Gunosy Capital

We invested in Faircent which provides peer-to-peer (P2P) lending platform which enables small, short-term, and high-frequency loans between individuals. (Investment made in August 2019)



Press Release

Gunosy

**Gunosy Capital、インドで P2P レンディングプラットフォームを提供する Fairassets Technologies に投資**

株式会社 Gunosy（本社：東京都港区、代表取締役 CEO：竹谷祐哉、以下 Gunosy）は、投資育成事業を行う子会社のコーポレートベンチャーキャピタル Gunosy Capital Pte. Ltd.（所在地：シンガポール共和国、代表取締役：木村新司、以下 Gunosy Capital）が、P2P レンディングプラットフォームでインド最大手の Fairassets Technologies India Pvt. Ltd.（以下 Faircent）に投資を行ったことをお知らせいたします。

GC
Gunosy Capital

【Faircent への投資背景】

近年インドでは個人間での融資サービス事業が急成長しており、2023 年までに約 5,000 億円に達する（※1）との見解があります。その背景には、インドの金融市場の経済悪化により、金融機関の貸し渋りが起こった（※2）ため、個人間融資の信用を創造するマーケットの成長が期待され、市場自体が伸びていることにあります。Faircent は個人や個人事業主間で、少額・短期・高頻度の貸付を行うことができるサービスプラットフォームを提供しており、当該分野で一番最初にライセンスを取得し、現在業界最大手の会社です。インドソフトウェア・サービス協会（NASSCOM）によると、フィンテックのソフトウェアやサービス市場は、2020 年には全世界で 450 億米ドルにまで拡大すると見込まれて（※3）います。インドは最も融資が

Image of press release published on August 16, 2019

Press release: https://gunosy.co.jp/news/187

| | |
|---|---|
| Company name | Fairassets Technologies India Pvt. Ltd. |
| Head office | Gurugram, Haryana, India |
| Representative | Rajat Gandhi |
| Established | March 2013 |
| Business | Online loan brokerage service |

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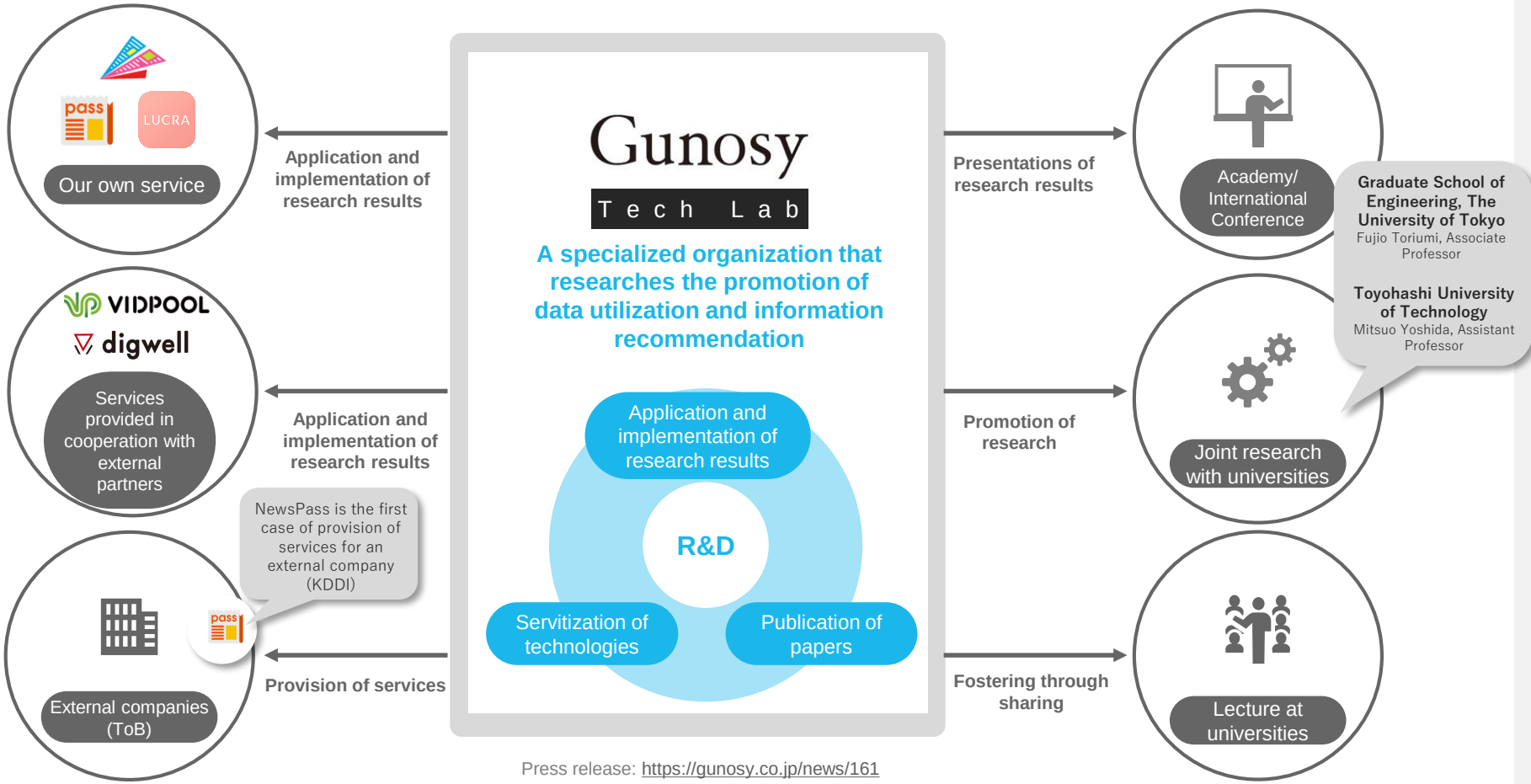
# R&D and Implementation of Research Results

# Outline of Gunosy Tech Lab

Gunosy

Gunosy Tech Lab was established as a **specialized organization to study further data utilization and information recommendation** in accordance with the mid- and long-term vision presented in January 2019. Through its establishment, we aim to break away from the framework of being merely a smartphone media company, to focus on the near future where IoT and 5G will be the center of development. We output research results in the form of **our apps provided to users, provision to external companies**, and **publication of papers**.




Press release: https://gunosy.co.jp/news/161



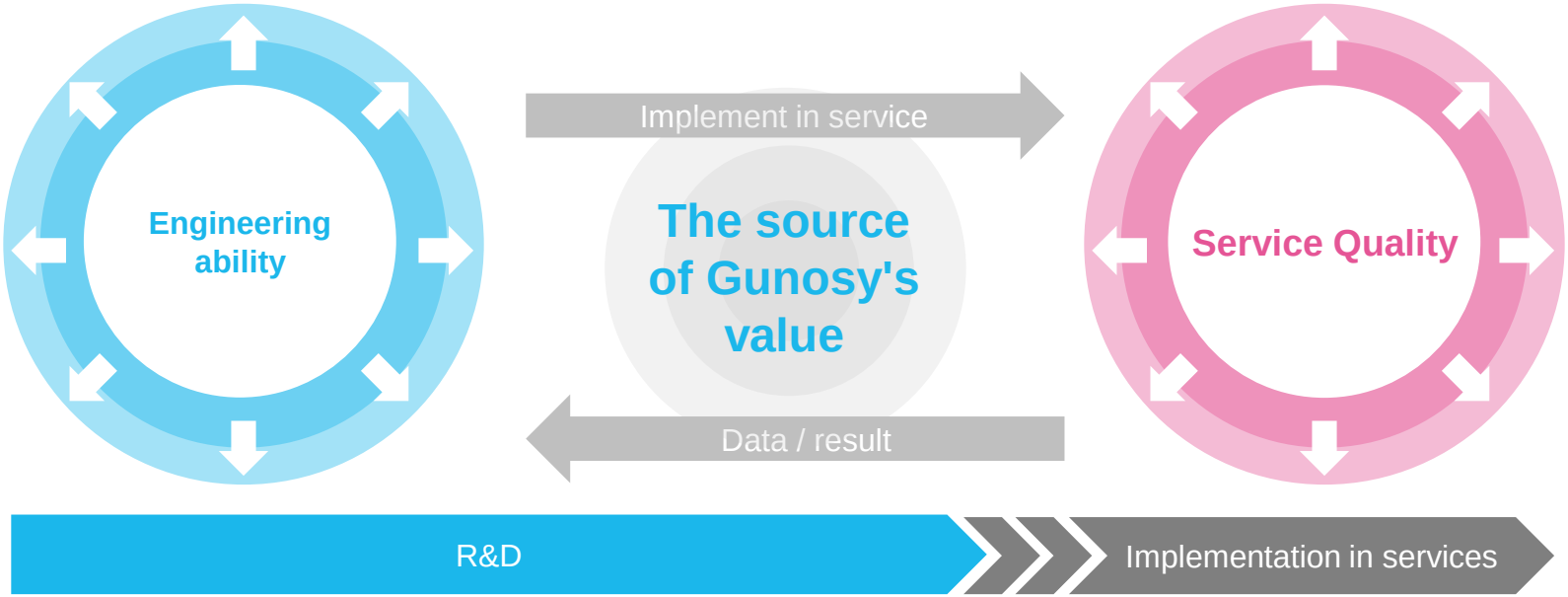
*1：東京大学大学院 工学系研究科システム創成学専攻 鳥海不二夫准教授
*2：豊橋技術科学大学 情報・知能工学系 計算社会学 吉田光男助教

# Background to the Establishment of “Gunosy Tech Lab”

Our **biggest strength is our “engineering ability”** based on algorithms using machine learning and natural language processing technology. Gunosy Tech Lab was established to further enhance these strengths.

## Gunosy’s growth cycle

Our “engineering ability” enables us to quickly implement and verify various measures such as improvement of algorithms and coupon programs, which ensures the improvement in "service quality".




Gunosy Tech Lab

Established in March 2019

# Recent Theme of “Gunosy Tech Lab”

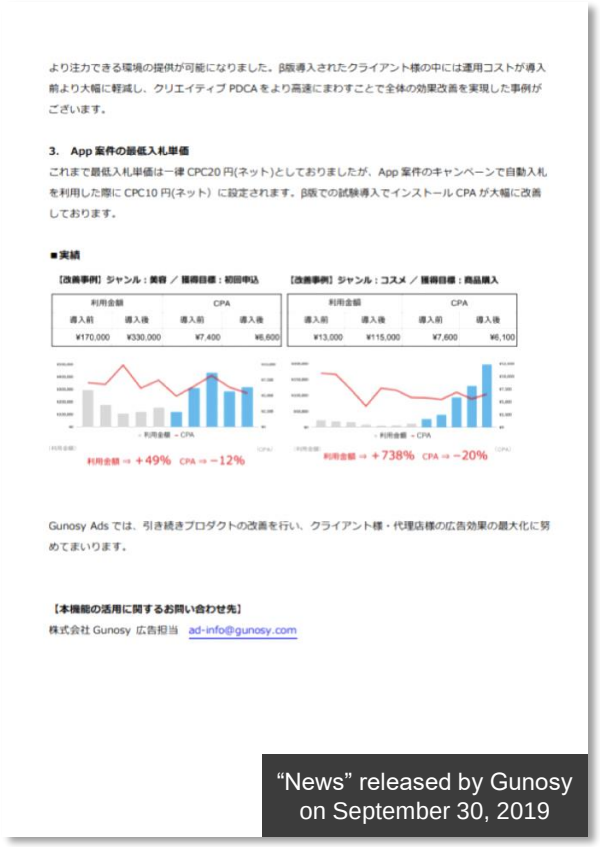
Gunosy

We will enhance **research and problem solving that can be utilized in fields other than the smartphone**, utilizing **technology centered on machine learning**. To this end, we are promoting the use of data for O2O measures as well as the use of data acquired and accumulated so far through various apps that we have provided for different target customers.

1. Enhancement of recommendation algorithm using deep learning / machine learning technology in various content formats
2. Research and development on data utilization for O2O business
3. Research and development of comfortable user experience on devices other than smartphones
4. Providing algorithms to external companies
5. Effective data linkage method between multiple companies

# “UOP”, a Bidding Function Using Machine Learning

We released **“UOP”, a bidding function using machine learning**, in “Gunosy Ads”. “UOP” is a function that **maximizes the efficiency of advertisement delivery** by calling for optimal bid for each user by way of machine learning. (Announced on September 30, 2019.)



より注力できる環境の提供が可能になりました。β版導入されたクライアント様の中には運用コストが導入前より大幅に軽減し、クリエイティブ PDCA をより高速にまわすことで全体の効果改善を実現した事例がございます。

3. App 案件の最低入札単価

これまで最低入札単価は一律 CPC20 円(ネット)としておりましたが、App 案件のキャンペーンで自動入札を利用した際に CPC10 円(ネット) に設定されます。β版での試験導入でインストール CPA が大幅に改善しております。

■実績

【改善事例】ジャンル：美容 ／ 獲得目標：初回申込

| 利用金額 | | CPA | |
|---|---|---|---|
| 導入前 | 導入後 | 導入前 | 導入後 |
| ¥170,000 | ¥330,000 | ¥7,400 | ¥6,600 |

利用金額 ⇒ +49% CPA ⇒ −12%

【改善事例】ジャンル：コスメ ／ 獲得目標：商品購入

| 利用金額 | | CPA | |
|---|---|---|---|
| 導入前 | 導入後 | 導入前 | 導入後 |
| ¥13,000 | ¥115,000 | ¥7,600 | ¥6,100 |

利用金額 ⇒ +738% CPA ⇒ −20%

Gunosy Ads では、引き続きプロダクトの改善を行い、クライアント様・代理店様の広告効果の最大化に努めてまいります。

【本機能の活用に関するお問い合わせ先】

株式会社 Gunosy 広告担当 ad-info@gunosy.com

“News” released by Gunosy on September 30, 2019

News: https://gunosy.co.jp/news/190

## (1) Outline of service

An automatic bidding function that determines an effective bid price considering various data including user-specific behavior and advertising characteristics, and clicks and conversions

## (2) Benefits of introducing UOP

- **Improvement of advertising effectiveness**
- **Reduction of operational cost**
- **Improvement of minimum bid price for apps**

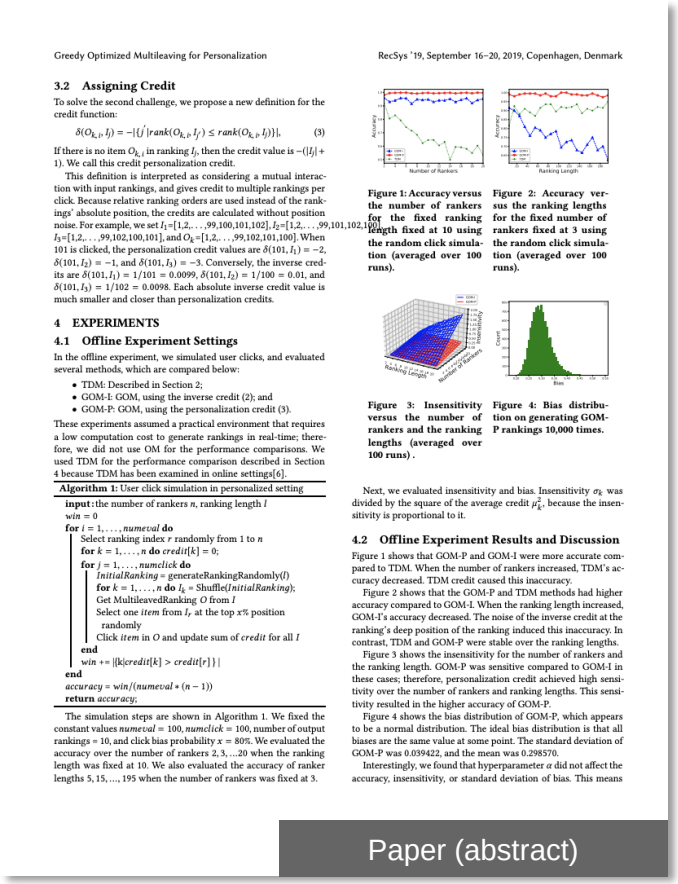
## (3) Example of improvement (Category: beauty)

| | Before introduction | After introduction | Change |
|---|---|---|---|
| Amount spent | 170,000 yen | **330,000 yen** | **+49%** |
| CPA | 7,400 yen | **6,600 yen** | **- 12%** |

# Continuously Publish the Research Results
## Obtained in the Course of Product Development

Gunosy

Following “KDD2019”, **our paper** that presented the research results of *“Greedy Optimized Multileaving for Personalization”* was **accepted at “RecSys 2019” which is recognized as the most prestigious international conference** in the area of recommendation system.



Greedy Optimized Multileaving for Personalization — RecSys '19, September 16–20, 2019, Copenhagen, Denmark

### 3.2 Assigning Credit

To solve the second challenge, we propose a new definition for the credit function:

$$\delta(O_{k,j}, I_j) = -|\{j' | rank(O_{k,j}, I_{j'}) \leq rank(O_{k,j}, I_j)\}|, \quad (3)$$

If there is no item $O_{k,j}$ in ranking $I_j$, then the credit value is $-(|I_j| + 1)$. We call this credit personalization credit.

This definition is interpreted as considering a mutual interaction with input rankings, and gives credit to multiple rankings per click. Because relative ranking orders are used instead of the rankings' absolute position, the credits are calculated without position noise. For example, we set $I_1$=[1,2, . . . ,99,100,101,102], $I_2$=[1,2, . . . ,99,101,102,100], $I_3$=[1,2, . . . ,99,102,100,101], and $O_k$=[1,2, . . . ,99,102,101,100]. When 101 is clicked, the personalization credit values are $\delta(101, I_1) = -2$, $\delta(101, I_2) = -1$, and $\delta(101, I_3) = -3$. Conversely, the inverse credits are $\delta(101, I_1) = 1/101 = 0.0099$, $\delta(101, I_2) = 1/100 = 0.01$, and $\delta(101, I_3) = 1/102 = 0.0098$. Each absolute inverse credit value is much smaller and closer than personalization credits.

## 4 EXPERIMENTS

### 4.1 Offline Experiment Settings

In the offline experiment, we simulated user clicks, and evaluated several methods, which are compared below:

- TDM: Described in Section 2;
- GOM-I: GOM, using the inverse credit (2); and
- GOM-P: GOM, using the personalization credit (3).

These experiments assumed a practical environment that requires a low computation cost to generate rankings in real-time; therefore, we did not use OM for the performance comparisons. We used TDM for the performance comparison described in Section 4 because TDM has been examined in online settings[6].

**Algorithm 1:** User click simulation in personalized setting

```
input : the number of rankers n, ranking length l
win = 0
for i = 1, . . . , numeval do
    Select ranking index r randomly from 1 to n
    for k = 1, . . . , n do credit[k] = 0;
    for j = 1, . . . , numclick do
        InitialRanking = generateRankingRandomly(l)
        for k = 1, . . . , n do I_k = Shuffle(InitialRanking);
        Get MultileavedRanking O from I
        Select one item from I_r at the top x% position
          randomly
        Click item in O and update sum of credit for all I
    end
    win += |{k|credit[k] > credit[r]}|
end
accuracy = win/(numeval * (n − 1))
return accuracy;
```

The simulation steps are shown in Algorithm 1. We fixed the constant values $numeval = 100$, $numclick = 100$, number of output rankings = 10, and click bias probability $x = 80\%$. We evaluated the accuracy over the number of rankers 2, 3, ...20 when the ranking length was fixed at 10. We also evaluated the accuracy of ranker lengths 5, 15, ..., 195 when the number of rankers was fixed at 3.




**Figure 1: Accuracy versus the number of rankers for the fixed ranking length fixed at 10 using the random click simulation (averaged over 100 runs).**




**Figure 2: Accuracy versus the ranking lengths for the fixed number of rankers fixed at 3 using the random click simulation (averaged over 100 runs).**




**Figure 3: Insensitivity versus the number of rankers and the ranking lengths (averaged over 100 runs) .**




**Figure 4: Bias distribution on generating GOM-P rankings 10,000 times.**

Next, we evaluated insensitivity and bias. Insensitivity $\sigma_k$ was divided by the square of the average credit $\mu_k^2$, because the insensitivity is proportional to it.

### 4.2 Offline Experiment Results and Discussion

Figure 1 shows that GOM-P and GOM-I were more accurate compared to TDM. When the number of rankers increased, TDM's accuracy decreased. TDM credit caused this inaccuracy.

Figure 2 shows that the GOM-P and TDM methods had higher accuracy compared to GOM-I. When the ranking length increased, GOM-I's accuracy decreased. The noise of the inverse credit at the ranking's deep position of the ranking induced this inaccuracy. In contrast, TDM and GOM-P were stable over the ranking lengths.

Figure 3 shows the insensitivity for the number of rankers and the ranking length. GOM-P was sensitive compared to GOM-I in these cases; therefore, personalization credit achieved high sensitivity over the number of rankers and ranking lengths. This sensitivity resulted in the higher accuracy of GOM-P.

Figure 4 shows the bias distribution of GOM-P, which appears to be a normal distribution. The ideal bias distribution is that all biases are the same value at some point. The standard deviation of GOM-P was 0.039422, and the mean was 0.298570.

Interestingly, we found that hyperparameter $\alpha$ did not affect the accuracy, insensitivity, or standard deviation of bias. This means

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