

Notice

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HEROZ
JAPAN

Presentation Material for
FY04/2019 Q2 Financial Results

December 7, 2018

HEROZ, Inc. (4382)

The logo for HEROZ JAPAN is displayed in white text on an orange background. The word "HEROZ" is in a large, bold, serif font, and "JAPAN" is in a smaller, all-caps, sans-serif font directly below it.

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Creating the future through artificial intelligence (AI) revolutions

Global Leader in Mind Game AI

Chess AI



Deep Blue ('97)
defeated a human
being champion

IBM

Shogi AI



AI developed by our
engineers defeated a
professional shogi
(Japanese Chess)
player ('13)

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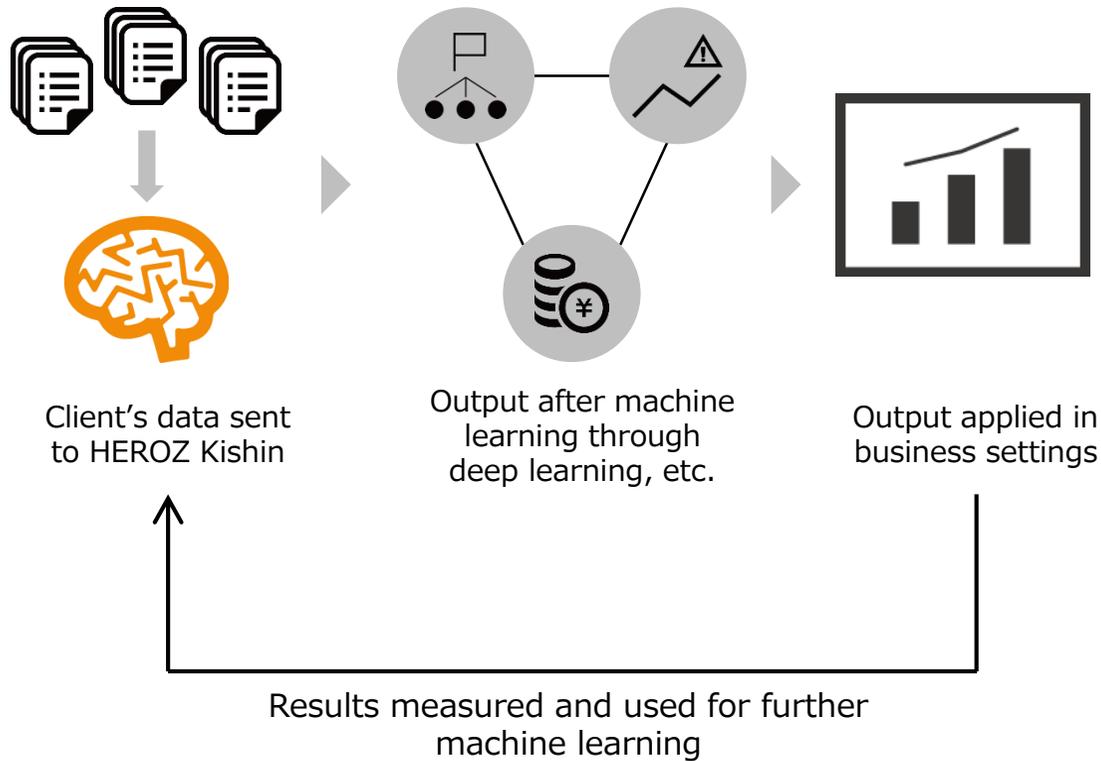
Go AI



Google acquired Deep Mind
('14)
AlphaGo, developed by
Deep Mind, defeated a
professional Go player
('16)

Google

B-to-B Services: Profit Model and High Switching Costs



Output precision increases through repeated machine learning

Research/develop Shogi AI

Standardize AI technology accumulated through shogi AI

Establish "HEROZ Kishin" = MLaaS (Machine Learning as a Service)

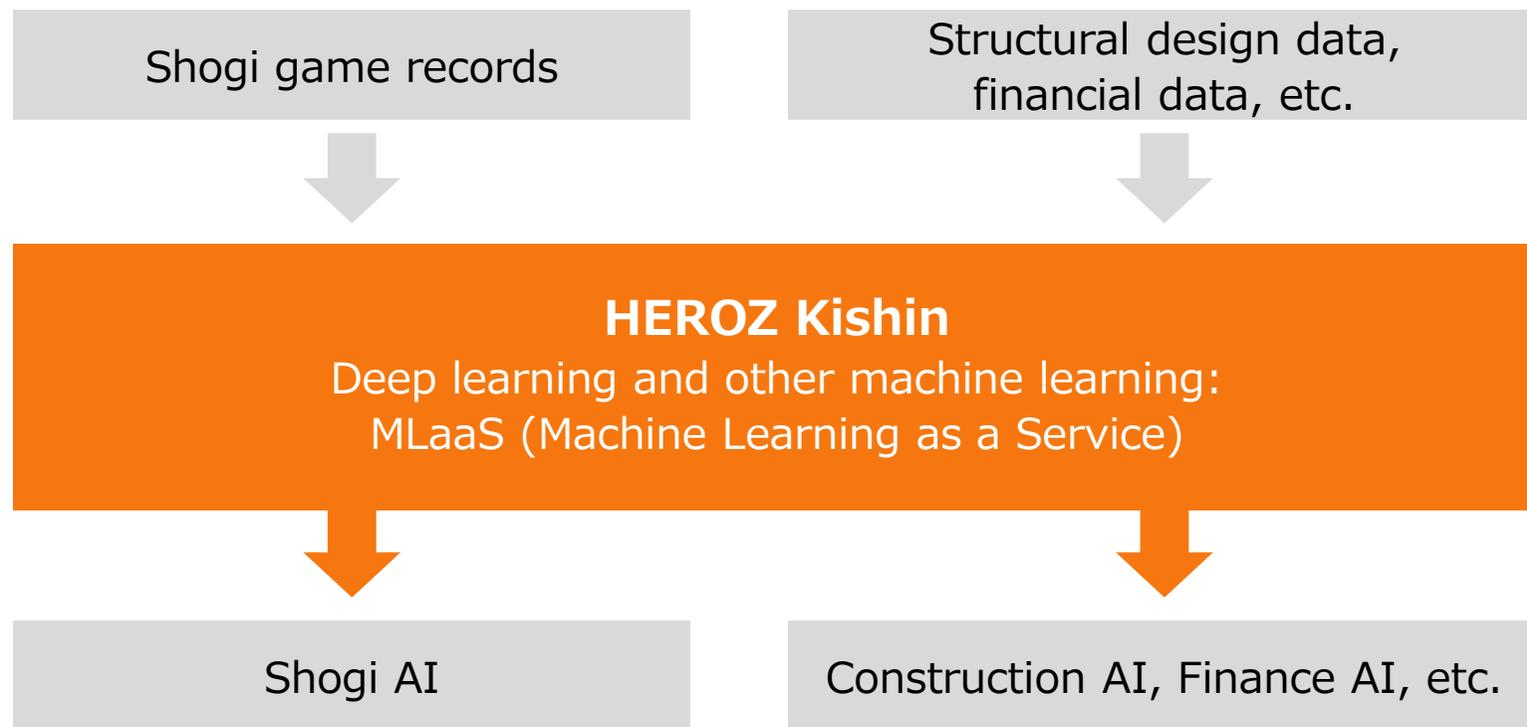
Establish an infrastructure which allows HEROZ to provide AI services efficiently to solve various challenges in various industries just by changing input data

Provide comprehensive AI services with massive servers

Achieve stable, sustained earnings and high switching costs

Earning structure: initial setup fee and ongoing fees

B-to-B Services: Provide Services by Replacing Shogi Game Records with Corporate Data

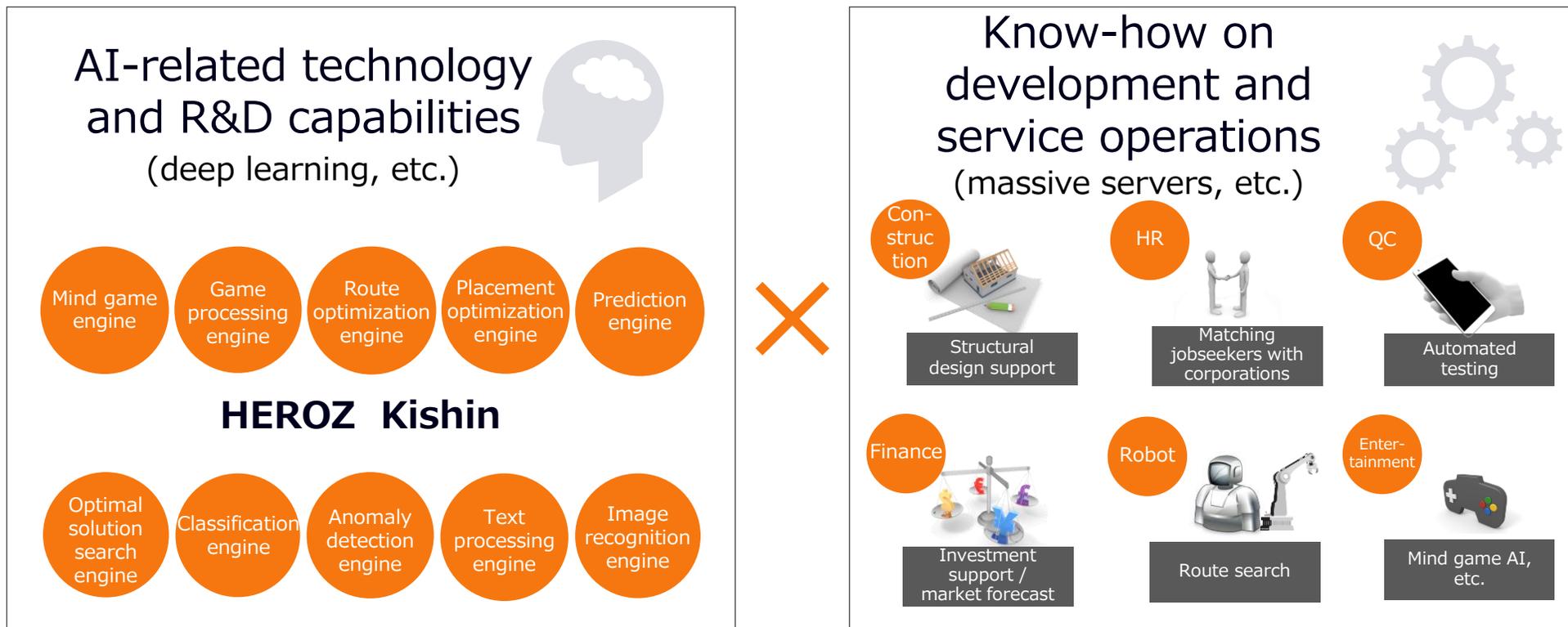


MLaaS : What is Machine Learning as a Service?

Business model which provides machine learning/deep learning as service, similar to SaaS (Software as a Service) and IaaS (Infrastructure as a Service)

B-to-B Services: Engines included in HEROZ Kishin and Examples of Applications

- Create AI products by combining engines and achieve an efficient operating structure



- In construction AI, which is one area of our focus, we entered into a capital and business alliance with Takenaka Corporation in 2017 and became a member of i-Construction, aiming to create a new, productive and attractive construction site using AI



B-to-B Services: Areas of Focus and Examples of Services Provided

- Focusing on construction, finance, and entertainment for the foreseeable future
- Earning structure is initial setup fee and ongoing fees

*Examples of clients served

Construc- -tion



Structural design support, etc.

Fi- -nance



Investment support,
market forecasts, etc.

Enter- -tainment



netmarble

Creation of high-quality NPCs,
game balance adjustment, etc.

In addition to fixed ongoing fees, ongoing fees in the form of revenue sharing will be introduced in FY04/2019

Charging fees for B-to-C content which user AI

- Leveraging AI-related technology to provide mind games such as shogi, chess, and backgammon worldwide
- Shogi Wars has become cash cow backed by increasing # of paid users



Shogi Wars



Animal
Shogi Wars



Igo Wars



CHESS HEROZ
(English)



BackgammonAce
(English)



Pokémon Comaster
(Pokémon Duel)

Earning structure: monthly membership fees,
Kishin (AI) usage fees, etc.

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- We believe that EBITDA, as calculated below, is our key performance indicator

$$\text{EBITDA} = \text{Operating Profit} + \text{Depreciation/Amortization Expenses}$$

- In AI-related businesses, server investments, etc. are required to engage in advanced machine learning, leading to various depreciation/amortization expenses. We aim to continuously enhance enterprise value/equity value via EBITDA growth, without being concerned about fluctuations in one-time depreciation/amortization expenses.

Performance Overview (May-October 2018)

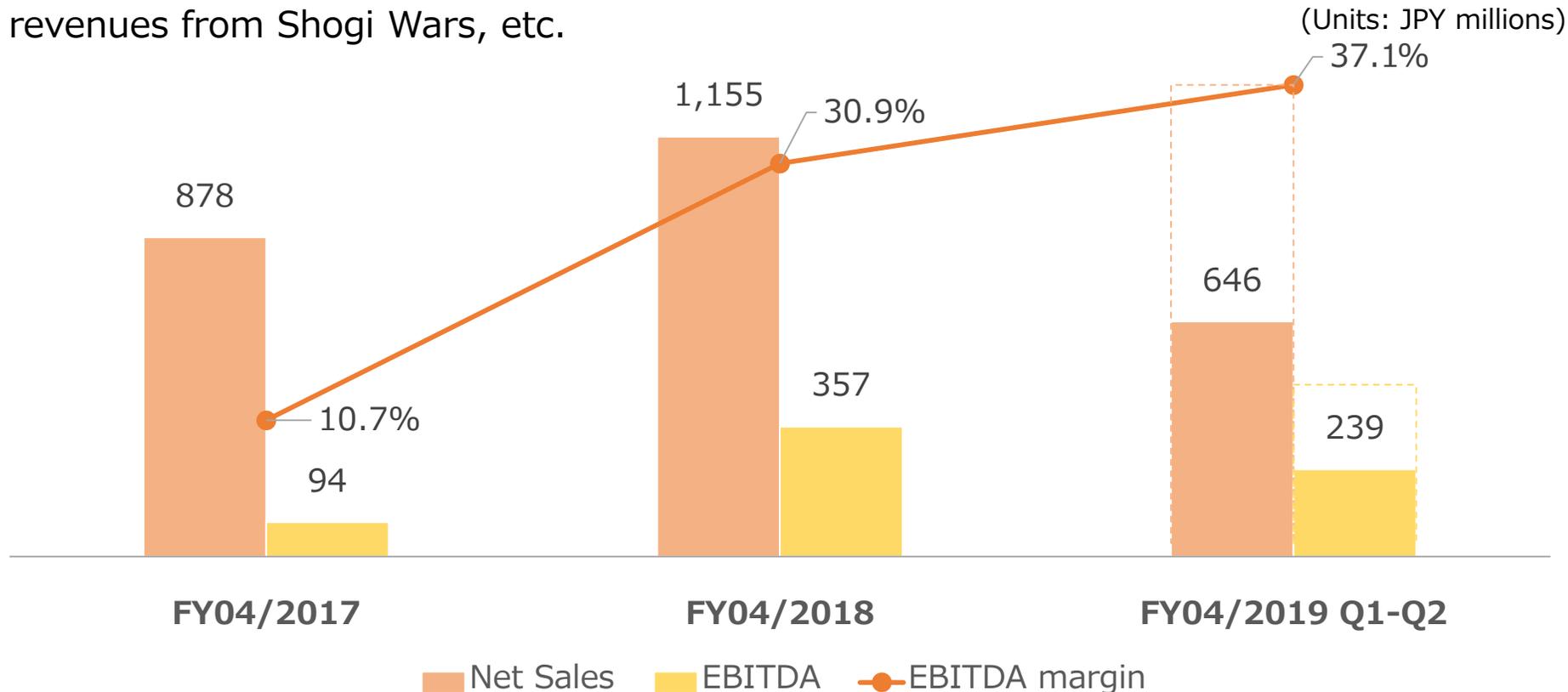
- We made steady progress towards achievement of fiscal year forecasts in the second quarter, driven by an increase in new and ongoing AI (B-to-B) projects and steady performance of Shogi Wars in AI (B-to-C) services

(Units: JPY millions)	FY04/2019 Q1-Q2 Actual	FY04/2019 Forecast	Progress (%)	(Reference) FY04/2018 Results
Net Sales	646	1,300	49.7%	1,155
EBITDA*	239	450	53.2%	357
<i>EBITDA Margin</i>	<i>37.1%</i>	<i>34.6%</i>		<i>30.9%</i>
Operating Profit	229	400	57.4%	354
<i>Operating Margin</i>	<i>35.5%</i>	<i>30.8%</i>		<i>30.6%</i>
Ordinary Profit	229	400	57.3%	338
Net Income	158	280	56.8%	247

* EBITDA = Operating Profit + Depreciation Expenses + Amortization of Lease Deposits

Performance Trends

- We forecast that revenues from AI (B-to-B) services, which is the core pillar of our growth strategy, will more than double on a year-on-year basis in FY04/2019
- On the other hand, we expect revenues from AI (B-to-C) services to decrease on a year-on-year basis as full year revenue contributions will not be recorded from several unprofitable services terminated during the last fiscal year. We expect a slight increase in revenues from Shogi Wars, etc.

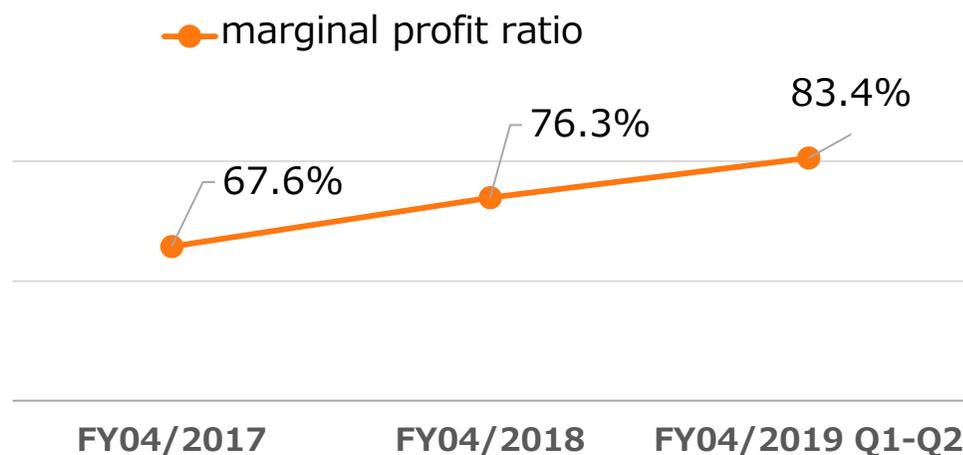


Service Overview and Marginal Profit

- Characteristics of AI (B-to-B) and AI (B-to-C) services are summarized below

Service	AI (B-to-B) Services	AI (B-to-C) Services
Summary	B-to-B machine learning service HEROZ Kishin	Shogi Wars, etc.
Input Data	Structural Design data, financial data, etc.	Shogi game records
Earning Structure	Initial setup and ongoing fees	Monthly membership fees, Kishin (AI) usage fees, etc.
Major Costs of Goods/Services	(Fixed) labor cost, server related cost	(Fixed) labor cost, server related cost (Variable) app commission fees, royalties

- HEROZ's overall marginal profit ratio, defined as $\frac{\text{net sales} - \text{app commission fees} - \text{royalties}}{\text{net sales}}$, is as shown on the right.
- Note that marginal profit ratio improves as the composition of AI (B-to-B) services increases.



Balance Sheet (as of October 31, 2018)

- We expect to continue to invest cash and deposits in efforts to achieve the medium-to-long-term growth strategy (computing servers, R&D, etc.)
- Tangible fixed assets increased by the second quarter due to the purchase of computing servers for about 50 million yen. Investments and other assets are also increasing as a result of the capital/business alliance and other strategic investments

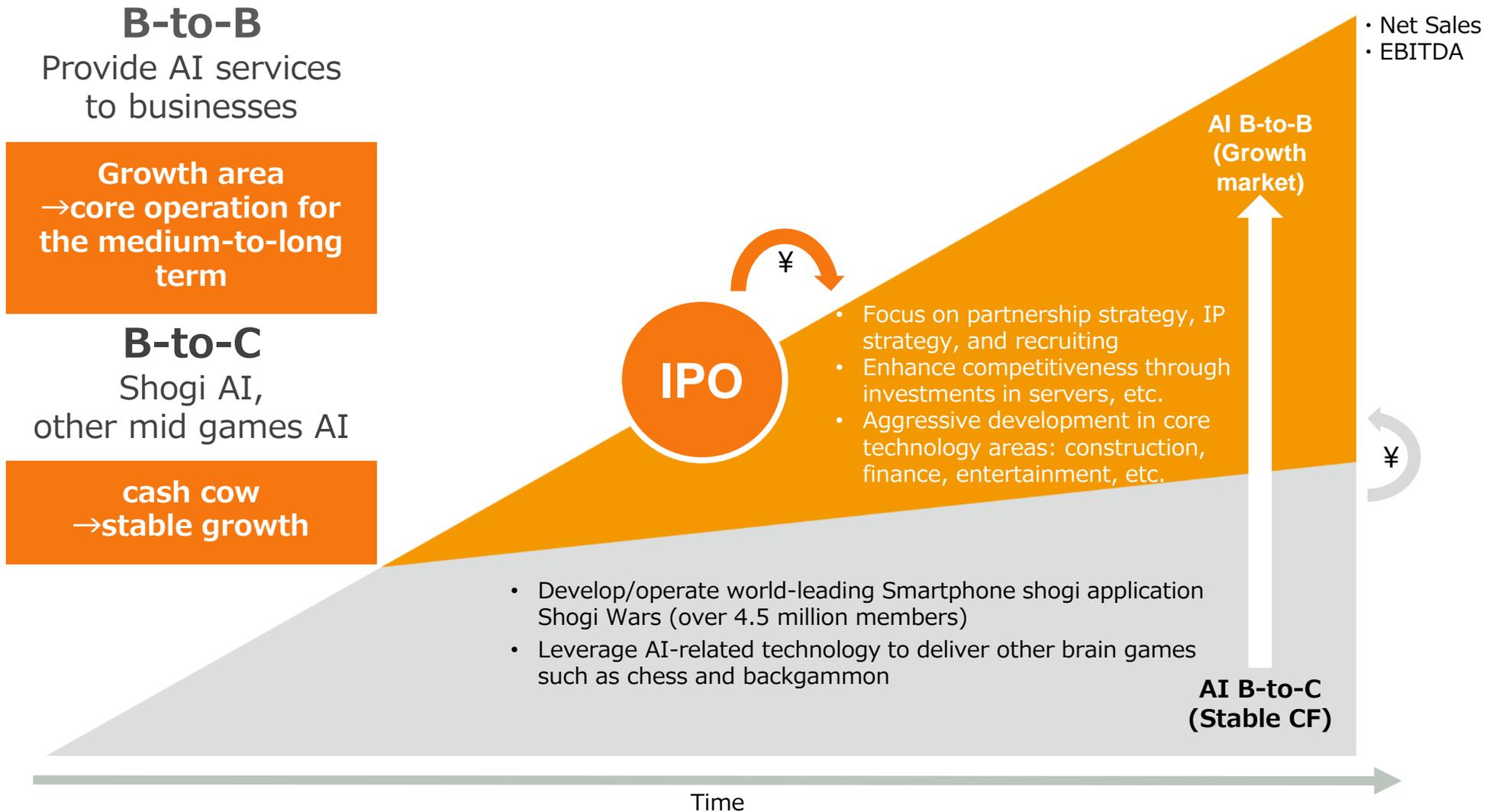
Units: JPY millions	As of 10/31/2018	As of 4/30/2018
Current Assets	1,673	1,684
Cash and deposits	1,475	1,555
Fixed Assets	282	63
Property, plant and equipment	48	30
Intangible assets	0	0
Investments and other assets	233	32
Total Assets	1,955	1,748
Current Liabilities	161	243
Fixed Liabilities	-	-
Net Assets	1,794	1,504

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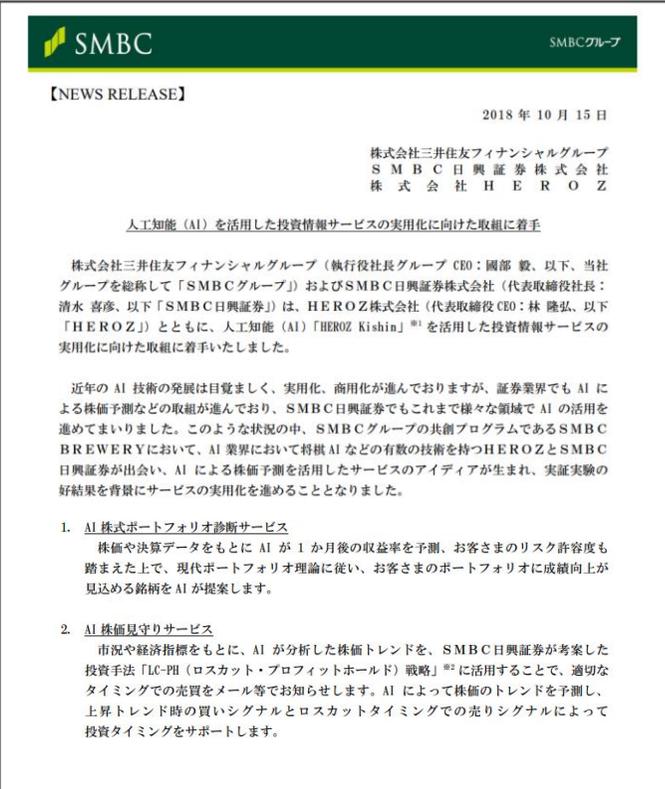
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Medium-to-long-term Growth Strategy



Initiatives Aimed at Achieving the Growth Strategy (1)

- Commenced joint efforts with Sumitomo Mitsui Financial Group, Inc. and SMBC Nikko Securities Inc. towards the commercialization of financial services using HEROZ Kishin (international patent pending)
 - Planning to commence services in the first half of 2019 towards SMBC Nikko Securities retail customers
 - AI equity portfolio diagnostic service
 - AI helps to pick up securities which may enhance the performance of customers' portfolios, taking customers' appetite for risk into account
 - AI stock price watch service
 - AI's analysis of stock price trends is used at SMBC Nikko Securities' investment methodology "LC-PH (loss cut-profit hold) strategy"



SMBCグループ

【NEWS RELEASE】

2018年10月15日

株式会社三井住友フィナンシャルグループ
S M B C 日 興 証 券 株 式 会 社
株 式 会 社 H E R O Z

人工知能 (AI) を活用した投資情報サービスの実用化に向けた取組に着手

株式会社三井住友フィナンシャルグループ (執行役社長グループ CEO: 園部 毅、以下、当社グループを総称して「SMBCグループ」) およびSMBC日興証券株式会社 (代表取締役社長: 清水 喜彦、以下「SMBC日興証券」) は、HEROZ株式会社 (代表取締役 CEO: 林 隆弘、以下「HEROZ」) とともに、人工知能 (AI) 「HEROZ Kishin」^{※1} を活用した投資情報サービスの実用化に向けた取組に着手いたしました。

近年の AI 技術の発展は目覚ましく、実用化、商用化が進んでおりますが、証券業界でも AI による株価予測などの取組が進んでおり、SMBC日興証券でもこれまで様々な領域で AI の活用を進めてまいりました。このような状況の中、SMBCグループの共創プログラムである SMBC B R E W E R Y において、AI 業界において将棋 AI などの有数の技術を持つ HEROZ と SMBC 日興証券が出会い、AI による株価予測を活用したサービスのアイデアが生まれ、実証実験の好結果を背景にサービスの実用化を進めることとなりました。

1. AI 株式ポートフォリオ診断サービス
株価や決算データをもとに AI が 1 か月後の収益率を予測、お客様のリスク許容度も踏まえた上で、現代ポートフォリオ理論に従い、お客様のポートフォリオに成績向上が見込める銘柄を AI が提案します。
2. AI 株価見守りサービス
市況や経済指標をもとに、AI が分析した株価トレンドを、SMBC日興証券が考案した投資手法「LC-PH (ロスカット・プロフィットホールド) 戦略」^{※2} に活用することで、適切なタイミングでの売買をメール等でお知らせします。AI によって株価のトレンドを予測し、上昇トレンド時の買いシグナルとロスカットタイミングでの売りシグナルによって投資タイミングをサポートします。

Initiatives Aimed at Achieving the Growth Strategy (2)

- Launch of AI CARDDASS, a new digital card game brand developed with Bandai Co., Ltd. which leverages HEROZ Kishin
 - The first series titled “ZENONZARD” expected to be released as a Smartphone application in 2019

- Initiatives relating to strategic investments
 - Invested in Pocket Queries, Inc. in October 2018 and entered into a capital and business alliance agreement
 - Successively engaging in strategic investments in order to expand HEROZ Kishin clientele and to stay current on state-of-the-art technological trends

- Stock Split
 - Split Ratio: Two-for-one
 - Reference Date: December 31, 2018 (Note that the last business day until the reference date is December 28, 2018)
 - Effective Date: January 1, 2019

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Company Overview

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Name	HEROZ, Inc.
Location	PMO Tamachi 2F, 5-31-17 Shiba, Minato-ku, Tokyo
Established	April 2009
Representatives	Takahiro Hayashi/Tomohiro Takahashi
Business	AI (B-to-B) services: HEROZ Kishin
Description	AI (B-to-C) services: “Shogi Wars”, etc.
Membership	Japan Deep Learning Association, The Japanese Society for Artificial Intelligence

-
- 2018** — Listed on Tokyo Stock Exchange (TSE) Mothers
Capital and business alliance with Netmarble Games Corporation
 - 2017** — Capital and business alliances with Takenaka Corporation, Hearts United Group, and Koei Tecmo Games
 - 2016** — Capital and business alliance with Bandai Namco Entertainment
 - 2013** — Shogi AI, developed by HEROZ engineers, defeated a shogi professional
 - 2012** — Launched mobile app, “Shogi Wars”
-



Representative Director and CEO
Takahiro Hayashi

Graduated from Waseda University
Joined NEC as a technology engineer
Experience at IT strategy division, business planning division
Founded HEROZ



Representative Director and COO
Tomohiro Takahashi

Graduated from Waseda University
Joined NEC as a technology engineer
Experience at Business Planning Division, BIGLOBE
Founded HEROZ

Shogi Track Record

Amateur 6th dan (highest rank after becoming national amateur champion)
7th dan, Shogi Wars
Amateur Kisen Champion (7-time title defender as national champion)
Played against Yoshiharu Habu (permanent 7 title holder)

Director and CFO, Business Planning Manager

Daisuke Asahara

Graduated from Kyoto University Graduate School
MBO from Wharton School, University of Pennsylvania (delivered graduation speech as student body representative)
Investment Banking Division, Goldman Sachs



The contents set out in this material are prepared based on generally acknowledged economic, social and other conditions, and on certain assumptions deemed rational by HEROZ, Inc. and may therefore be subject to change without prior notice due to changes in the managerial environment or for other reasons.

The forward-looking statements set out in this material including performance outlooks are based on information currently available to HEROZ, Inc. and on certain assumptions deemed rational, and may therefore differ materially from actual results due to uncertainties in judgements or assumptions, or for other reasons.

Such factors of uncertainty and change include both general, domestic and international economic conditions, such as general industry and market conditions, interest rates, and foreign exchange fluctuations. HEROZ, Inc. shall not undertake any obligations to update or revise any forward-looking information set out in this material even in the event that new information becomes available or certain events occur hereafter.

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