

GCC Management™ Analysis Report

ALPHAX · FOOD · SYSTEM CO.,LTD

Tokyo Stock Exchange Growth code: 3814

otober 6 2022

3.8x upside potential in 10-year growth value based on GCC Management™ analysis.

Contributing to the development of food culture through information systems, becoming the No. 1 information system and service provider in the restaurant industry with robots, Al, and DX.

This report analyzes corporate value from the perspective of GCC Management¹⁰⁰, a framework developed by J-Phoenix Research Corporation ("JPR") that emphasizes the three elements of Growth (sales growth), Connection (improved connections between people and business = higher return on capital), and Confidence (improved trust = lower business risk).

Long-established information system infrastructure that reduces food loss and labor costs

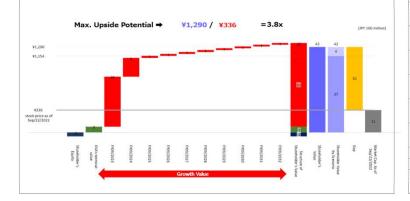
ALPHAX FOOD SYSTEM CO.,LTD ("AFS") was established in December 1993 as an independent company from Alphax Corporation, which was founded in March 1987. Since its establishment, AFS has been providing the industry's first "Restaurant Management System" for restaurant companies, with the goal of "contributing to the development of food culture through information systems". In particular, AFS has contributed to the reduction of food loss and labor costs by developing and providing an automatic ordering system (patented) that allows for complete automatic replenishment of manual ordering of ingredients and supplies, taking into account the current inventory and other factors.

Providing information system infrastructure for the food industry that responds to new normal

AFS has achieved reductions in both software and hardware, mainly in food loss and mainly in labor costs in the backyard. In the era of new normal, AFS will seek growth through contactless services utilizing self-checkout and robots. Through sales strategies tailored to the size of the client, AFS will widely deploy its information system infrastructure to both large-scale projects and individual restaurants that are expected to expand in the future. By not only providing this established information system infrastructure to support restaurant management, but also expanding its use to franchise stores, AFS will be able to achieve stable sales growth and earn royalties.

Potential for up to another 3.8x in market capitalization, depending on 10-year growth scenario

The shareholder value reflecting this transformation was estimated using the "excess profit method" (see "Appendix 2.") according to the GCC Management™ framework. The value as the No. 1 information systems and services company in the restaurant industry through robots, AI, and DX was estimated at JPY 3.7 billion based on the company's outlook, and the value of the blossoming of the individual restaurant market support was estimated to be around JPY 400 million for AFS's growth potential (see "Invest Summary" for details). The total of JPY 4.2 billion is 3.8 times the current market capitalization. AFS's market capitalization is expected to have room for a significant increase depending on the progress of its "future" activities.



Basic report

Edited and written by J. Phoenix Research Inc. Osamu Miyashita and Taizo Honda www.j-phoenix.com

Corporate Profile						
Headquarters	Sanyoonoda, Yamaguchi					
President & CEO	Yumiko Fujii					
Established	December, 1993					
Capital	JPY 699 million					
Listed	September, 2006					
URL	https://www.afs.co.jp/					
Industry	Information & Communication					
Key Indicators(as of October 5, 2022)						
Stock Price	JPY 322					
Highest in 52 weeks	JPY 957					
Lowest in 52 weeks	JPY 320					
Outstanding Shares	3,218,600 stocks					
Trading Units	100 stocks					
Market Capitalization	JPY 1,036 million					
Prospective Dividend						
Estimated EPS	JPY 29.59					
Estimated PER	10.88 times					
Actual BPS (March 2022)	JPY -65.87					
Actual PBR	-4.89 times					

Performance Trends			Operating income		Ordinary income		Net income				Price
	JPY million		JPY million		JPY million		JPY million		JPY	High Price(JPY)	Low Price(JPY)
Results for FY 9, 2019	2,218	15.5	335	599.3	267	664.7	126	-	51.31	2246	1113
Results for FY 9, 2020	1,291	-41.8	-508	-	-532	-	-655	-	-266.07	1754	328
Results for FY 9, 2021	1,573	21.8	-178	-	-264	-	-272	-	-105.94	1373	594
Results for FY 6, 2021	1,258	29.2	-36	-	-110	-	-116	-	-45.93	977	718
Results for FY 6, 2022	971	-22.8	-252	-	-285	-	-291	-	-104.89	506	371
Plans for FY 9, 2022	2,020	28.4	144	-	99	-	82	-	29.59	-	-

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1.Investment summary

Shareholder Value Analysis

Estimate using the excess profit method

Potential for a big leap forward

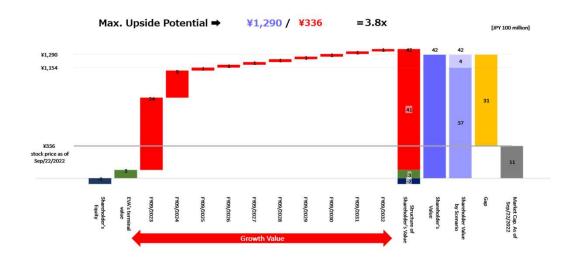
Up to 3.6 times upside

Shareholder value was estimated using the "Excess Profit Method" (see "Appendix 2.") based on the GCC Management™ framework. The following figure visualizes the results of the estimation. Assumptions are shown on the next page and beyond. The value of being the No. 1 information system and service company in the restaurant industry through robots, AI, and DX was estimated at JPY 3.7 billion based on AFS's forecast, and the value of blossoming individual restaurant market support was estimated to be around JPY 0.4 billion based on JPR's own assumptions about AFS's growth potential. The total of JPY 4.2 billion is 3.8 times the current market capitalization. The market capitalization is expected to rise significantly depending on the progress of growth scenario. As these moves are realized from time to time in the future, there is a good possibility that the market capitalization will reflect the value of AFS's growth 10 years from now in the next one to two years ahead of schedule.

Shareholder Value Analysis (Unit: JPY Billion)

Market capitalization Market capitalization 1.1 times Maximum Upside = 42÷11 Shareholder value reflecting a 10-year growth scenario to the maximum extent possible 4.2 Shareholders' equity + excess profit value + growth value= Excess Shareholders profit **Growth value** equity value 4.1 -0.2 0.3 Value as the No. 1 Information Systems and Services The value of individual Company in the Foodservice Industry through Robotics, restaurant market support AI, and DX blossomed. 3.7 0.4 [Source] JPR

Time series analysis of shareholder value



[JPY 100 million]	Current Year	1 year later	2 years later	3 years later	4 years later	5 years later	6 years later	7 years later	8 years later	9 years later	10 years later
[H. 255 MINIST	2022.09	2023.09	2024.09	2025.09	2026.09	2027.09	2028.09	2029.09	2030.09	2031.09	2032.09
Sales	20	28	31	32	33	34	35	36	37	38	39
Operating income	1.4	4.0	5.0	5.1	5.3	5.5	5.6	5.8	6.0	6.1	6.3
Operating margin	7.1%	14.3%	16.1%	16.1%	16.1%	16.1%	16.1%	16.1%	16.1%	16.1%	16.1%
Sales growth rate	28.4%	38.6%	10.7%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
NOPAT margin	4,9%	9.9%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%
Invested capital turnover ratio	75.8%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%
WACC	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
ROIC = NOPAT margin + invested capital net sales ratio	6.5%	12.7%	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%
ROIC / WACC (value created with the original hand of 1 yen)	¥1.2	¥2.3	¥2.6	¥2.6	¥2.6	¥2.6	¥2.6	¥2.6	¥2.6	¥2.6	¥2.6
NOPAT	1.00	2.77	3.45	3.55	3.66	3.77	3.88	4.00	4.12	4.24	4.37
Invested capital × WACC	0.84	1.20	1.33	1.37	1.41	1.45	1.50	1.54	1.59	1.64	1.68
EVA	0.15	1.56	2.12	2.18	2.25	2.32	2.39	2.46	2.53	2.61	2.69
EVA = NOPAT - invested capital × WACC	0.15	1.56	2.12	2.18	2.25	2.32	2.39	2.46	2.53	2.61	2.69
Value created in each year	3	26	10	1	1	1	1	1	1	1	1
Discount Rate	100%	95%	90%	85%	81%	77%	73%	69%	65%	62%	59%
Present value of EVA	3	24	9	1	1	1	1	1	1	1	1
Invested capital ① Origin	15										
Over profit value (Permanent value of EVA of this term) 2	→ 3						- 1				
Growth value (Present value of increase in EVA) 3	41										
Non-business asset value 4	0										
Corporate value = 1 + 2 + 3 + 4	59										
Interest-bearing debt, etc.	-17										
Shareholder value	42										

[Source] JPR

Growth potential Profitability Sustainability

Expansion of business areas and stable growth of existing businesses

Franchise expansion contributes to enhanced development

Highly sustainable business model from three perspectives

Stable growth through expansion of software and hardware strengths and development of franchise stores

Growth: Growth through food loss reduction systems and expansion of labor-saving areas

AFS has been engaged in "store information system equipment" and "headquarters core information systems" specialized for restaurants for 32 years, and with the change of the top management structure, it will also work to enter different industries in the robotics field and promote franchisees. Through this, AFS aims to expand its business domain and achieve stable growth in existing businesses. In addition, as the needs for support continue to change in the new normal era in the traditional food domain, AFS will constantly develop and provide services that reduce food loss and save labor, both in Japan and overseas.

Connection: Establish sales channels to the entire food industry and strengthen development

AFS's target customers in the food industry range from the top 300 major chains to individual restaurants, including caterers, side dishes, boxed lunches, business establishments, nursing care facilities, hospitals, and school cafeterias. AFS will adopt sales strategies such as direct sales, use of sales agents, and tie-ups with free services, according to the scale of the business for each type of software and hardware. In addition, AFS will expand sales and showrooms through the development of franchises of Masters Café, and use this to increase the speed at which new products and services are introduced, similar to hotel operations.

Confidence: Stable profitability while reducing food and human losses

AFS's food loss and labor cost reduction services will contribute to the formation of a human-centered society by eliminating the complexity of the relationship between food and people. In addition, continued use of the service, equipment rentals, and franchise expansion will promote stable earnings and strengthen financial stability. Furthermore, the reduction of delivery frequency and waste through optimal ordering will reduce greenhouse gas emissions, and labor savings will lead to an improved work environment, service, and profitability, thereby contributing to the achievement of various SDGs goals.

GCC Management™ Analysis of 10-Year Future Story Financials

Growth	Connection	Confidence
Sales growth of 3.0% ¹ per year	Return on invested capital (ROIC ²) improved to 13.9% ³ .	WACC 5.5%⁴

1. From the plan for conforming to the listing maintenance standards for the new market segment; 2. See "Reference Materials 2" at the end of this document for the calculation method of return on invested capital; 3. From the plan for conforming to the listing maintenance standards for the new market segment; 4. From the plan for conforming to the listing maintenance standards for the new market segment; and 5.

[Source] JPR

Future Story

Supporting the provision of intrinsic value in restaurant management as an information system infrastructure

GCC Management

™ Analysis

integrates

quantitative

analysis with

qualitative stories

Providing New Normal compliant services with a focus on the food industry

Qualitative future story based on GCC Management™ analysis

AFS will deploy its ASP services and system equipment as an information system infrastructure that reduces food material loss and labor costs from a variety of sales channels targeting the entire food industry. AFS will also develop franchises of overwhelmingly efficient stores operated by utilizing this infrastructure to achieve stable sales growth through service and equipment sales and royalties, as well as to enhance its sales function as a showroom. AFS's business will also attract attention from the perspective of the SDGs as a solution to the food loss and labor shortage issues. In addition, because AFS supports the provision of intrinsic value in restaurant management, it is considered to be a business that will help realize the human-centered society of Society 5.0.

Values, Strategy, Business Model, Sustainability

Based on the content of this report, JPR has drawn a future story that will lead to growth in shareholder value. The starting point is the sense of value. The values are systematized in terms of the concept of "growth" because they define the growth potential of the markets involved. Next, the plan to achieve the values becomes the strategy and business model. These are systematized under the concept of "Connection," which refers to the linkage of management resources. Sustainability is systematized as Confidence.

GCC Management™ Analysis - Qualitative Future Story Visualization

Growth

Values

Commercialize industry firsts, world firsts, and unrivaled creative business models

Developing and providing systems to solve management issues such as food loss in the restaurant industry by utilizing knowledge from the manufacturing industry.

Connection

Strategies and Business Models

The only company in Japan to provide both "store information system equipment" and "headquarters core information system

No. 1 market share by offering packaged and cloud versions

Confidence

Sustainability

Contributes to streamlining restaurant management by reducing food loss and labor costs

Earning trust with "store information system equipment" and "headquarters core information system" that we have continued to provide for more than 30 years

Contributing to the development of food culture through information systems, becoming No. 1 in information systems and services in the restaurant industry with robots, AI, and DX

Ensuring maximum profit for customers by reducing food and labor cost losses

Opening up the "New Normal Era" in the areas of non-contact, hygiene, and work methods.

[Source] JPR

Establish a sales strategy tailored to the customer's size as a multi-vendor package

Develop and expand sales of products and services that respond to the new normal

Increase the speed of launching new products and services through directly managed hotels and cafes

Promoting SDGs in the restaurant industry through automated ordering systems

Supporting what restaurants really want to do by providing various automated services

Generate revenue from stock through monthly fees, equipment rentals, and franchises

2. Future Story

History of Value Formation

Long-established system for food services

Taking Manufacturing Naturally in the Restaurant Industry

The "leading authority on information systems and infrastructure" for the entire foodservice industry

Manufacturing-derived management system deployed in the restaurant industry

Establishment of AFS

AFS's Chairman Tamura, a systems engineer who developed inventory management systems and other systems for the manufacturing industry, developed a food distribution management system in his previous position and founded AFS based on this experience. Since then, AFS has been striving to commercialize a creative business model that is the first in the industry, the first in the world, and unrivaled by any other company, and has become the only information system and service company in Japan specializing in food service that has handled both "store information system equipment" and "headquarters core information systems" for 32 years.

Solving issues with "store information system equipment" and "headquarters core information system

In the manufacturing industry, the operation of inventory management and automatic ordering of inventory for the parts that make up a single product is a matter of course. On the other hand, restaurants have a large number of stores and the scale of each store is overwhelmingly small, making it time-consuming to build an inventory management system. In response, AFS continues to develop and provide systems that solve management issues such as food loss in the restaurant industry by utilizing its knowledge of the manufacturing industry.

<u>Change in top management structure to strengthen new businesses and cross-industry alliances</u>

At AFS, as of December 27, 2021, President Fujii, a founding member who co-founded AFS with Chairman Tamura, has assumed responsibility for overseeing domestic sales as President and Representative Director. In order to establish a foundation for the next phase of business growth and to rebuild business performance under the influence of COVID - 19, President Fujii will be responsible for domestic sales supervision and the development of a wide-area distributor network and partnerships with companies in different industries by launching new businesses, which he has experience in, while Chairman Tamura will expand business domains, develop new products and services, and expand existing services on a global scale.

AFS has developed and provided a history of industry firsts

Year	Contents			
1989	Software maintenance system is brought into the domestic PC package as a monthly fee.			
1990	Offering free system level-up in the maintenance system online.			
1993	Even the master and program of the POS system will be leveled up through communication process as a standard service.			
1995	Established a website with the aim of becoming a portal site dedicated to the industry.			
1996	Launched ASP-type business services at a time when the term ASP/data center did not even exist.			

[Source] Compiled by JPR from company data

Values

Contributing to the development of food culture through information systems, and becoming the No. 1 information system and service provider in the restaurant industry with robots, AI, and DX

Provide infrastructure for food service culture

The restaurant industry's systems are still in a situation similar to the situation in the past, when computers had their own operating systems and developed their own business systems with no compatibility, and the problem of food loss is also attributed to this situation. AFS is working to provide the restaurant industry with the best, most user-friendly, and cost-effective information system infrastructure, just as computer operating systems have been unified and business systems have been upgraded.

Aiming for market dominance as an infrastructure for the restaurant industry

Promoting data compatibility through unification

Just as Microsoft Corporation, which unified the operating system, emerged and dynamically improved the functionality of all business systems in the world under the guarantee of OS compatibility, a monopoly by some company will rapidly increase data compatibility between the Internet, lowering usability and total cost to the limit. As Microsoft has achieved in the world of operating systems, AFS believes that the only way for information systems and services in the restaurant industry to take root as a solid infrastructure for restaurant customers with the highest usability and cost performance is for AFS to monopolize the information systems and services of the restaurant industry.

The entire "food" industry is a market.

AFS targets not only restaurants, but also the entire "food" industry, including caterers, side dishes, boxed lunches, business establishments, nursing care facilities, hospitals, and school lunches, for its main information systems and services. By establishing different sales channels, Market AFS covers all types of restaurants, from major chains to pre-growth restaurants, and continues to expand in order to take root as an infrastructure in the food service industry.

Information system and service infrastructure provided by AFS



Infection control and labor cost reduction through "self-service"

Transparency of food costs and reduction of

food loss through "automation'

Industry's first fully automated

Industry's first fully enclosed AI catering robot and sterilization robot







Reducing Labor Costs with "AI Robots"

[Source] Company data

Reduction of food and labor cost losses to Ensuring maximum profit for customers

Restaurant Business Management System® eliminates the black box

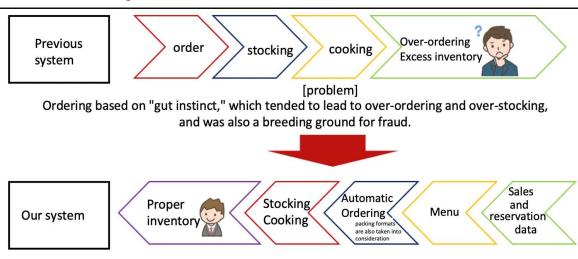
The restaurant industry has difficulty dealing with menus and inventory

The "Restaurant Business Management System®" is a core business/standard system that systematized restaurant operations for the first time in Japan in 1987, with a focus on food loss in pursuit of cost reduction and maximum profit. The reason why information infrastructure has not been developed in the restaurant industry is that, unlike products in the retail industry, there is not a one-to-one relationship between the menu items served and the ingredients purchased; POS utilizes the same system as in the retail industry, so the menu items sold can be identified, but the ingredients consumed by the menu items sold are not. Without breaking down the recipe and linking it to the inventory of ingredients purchased, proper costing, inventory control, and automatic ordering cannot be performed.

Master construction to break down and organize recipes into ingredients

In order to solve the problem of the lack of a one-to-one relationship between consumed menu items and purchased ingredients, it is necessary to break down the menu items into ingredients, take yield into account, and link them to the inventory to be purchased. Such management is common in the manufacturing industry, but in the restaurant industry, the number of menus and the frequency of menu changes are high, the number of restaurants is small but numerous, and companies lack the personnel to build information systems, and outside companies only provide systems that can be used to build masters and do not build masters. To solve this problem, AFS analyzes customers, builds masters, and constructs information systems on its own.

Master Building to Eliminate the Black Box



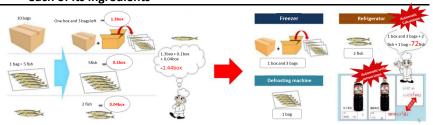
[Source] Company data

Realization of "low break-even point" stores that overturn the FL common practice for restaurants

The industry's only "automatic ordering system

The only "Automatic ordering system" in the restaurant industry is an extension of the "Restaurant Business Management System® " and is part of AFS's core business. Based on the master built by AFS, the menu is determined by calculating backward from sales data, reservation data, and inventory, enabling accurate and automatic ordering of each food ingredient and equipment, taking the packing style into consideration. The standard is derived from automated ordering in the manufacturing industry, which is different from automated ordering in retail, and allows for replenishment methods tailored to each business type form, corporation, and store manager's ideas.

Inventory management taking into account the menu and the units of each of its ingredients



[Source] Company data

Fully automated ordering significantly reduces material and labor

Fully automated ordering, achieved by combining AFS's "Restaurant Business Management System®" and "Automatic Ordering System," enables significant reductions in material and labor costs, the two major costs in the food service industry. In addition to reducing food material losses through accurate ordering, automated ordering reduces labor costs associated with ordering, resulting in a lower FL ratio = (food material cost + labor cost) / net sales and a lower break-even point for restaurants.

Example of a store that introduced fully automated ordering: MASTERS CAFE



Opening up the "New Normal Era" in the areas of non-contact, hygiene, and work style

Infection control and manpower saving with complete non-contact self-checkout

<u>Self-Checkout System Dedicated to Restaurants Reduces the Number of</u> Floor Staff to Zero

"Self-Shot", a self-checkout system dedicated to restaurants, not only handles both front and rear checkout, but can also be linked to order terminals, mobile POS, delivery systems, and other systems. Furthermore, since it supports a variety of payment methods, including cards and smartphones, a single self-checkout unit and multiple order terminals can replace a ticket vending machine, enabling complete unmanned operation of the process up to the serving of food. In addition, the ability to output reservation slips allows for the seamless transmission of information in store operations, not only for orders at the store, but also for reservations and takeout.

Complete non-contact realization through linkage of the meal delivery Al robot and AFS and other system devices

AFS's "Service Shot," a catering AI robot, is characterized by four features: (1) a fully autonomous walking robot that requires no preparation time or construction, (2) a sealed food storage compartment, (3) a food delivery and lowering system, and (4) a variety of communication applications, including recommending additional orders and calling out to customers. By linking this robot with AFS's other systems and equipment, it can provide a new normal for restaurants, realizing non-contact service even at buffets and drastically reducing labor costs.

Pioneering the "New Normal Era" by Expanding Target Industries and Expanding Globally

Sterilization Robot Series Expands Target Market

AFS has introduced its sterilization gate "Virus Gate Shot" to six private after-school children's clubs in Hiroshima City, and is introducing its sterilization AI robots and sterilization gates to a wider market as a commercial product that can be used outside the food and beverage industry. The sterilization robots, in particular, are fully autonomous walking robots like the meal delivery AI robots, and thus contribute not only to avoiding the risk of viral infections, but also to reducing manpower and labor costs at facilities.

Global expansion in anticipation of declining birthrates in developed and emerging countries

AFS's global expansion is progressing, with a change in the top management structure allowing Chairman Tamura, AFS's founder, to focus on global expansion, new business development, and development supervision, as well as the introduction of "Timely", an attendance tally management system specialized for the restaurant industry, to mainland China stores of "Sushiro", a conveyor-belt sushi chain. AFS plans to introduce the global version of "Timely" in Sushiro's overseas stores in the future, and expects to expand its business not only in Japan but also in other countries where labor saving is needed.

Labor-saving package for reservations and takeout

Flexible robot that is ready-to-use and does not "just carry".

Expansion of laborsaving and labor cost reduction services starting with sanitization

Japan is not the only country with a declining birthrate.

Strategy/ Buisiness Model

Establishing a sales strategy tailored to the scale of the customer as a multi-vendor package

Early market penetration through a "co-creation future" relationship that uses a variety of wholesale sales channels for conventional competitors.

<u>Distribution sales channels from both software and hardware</u> manufacturers

AFS has established a "co-creation future" relationship in which it sells the headquarters-side mission-critical systems provided by its ASP/packaged system business and the store-side system equipment provided by its system equipment business wholesale as a multi-vendor package to its traditional competitors in various commercial products as well. By establishing diverse distribution and sales channels from both software and hardware manufacturers, consisting of major computer manufacturers, system integrators, and ASP providers, as well as major POS manufacturers, AFS aims to achieve market penetration at an early stage.

"Co-creation future "relationship aiming for early market penetration

Distribution and sales channels tailored to customer size

AFS mainly targets the food industry, including catering, side dishes, boxed lunches, and business/nursing home/hospital/school meals. AFS's sales strategy is to sell to the top 300 major chains directly, to mid-sized chains through major vendors, and to preemerging restaurants through sales agents. It can be said that AFS has established an optimal sales structure not only for large chains switching to cloud services, but also for the entire restaurant industry as a whole, where there are many cases of rapid turnover and accelerated store openings.

Covers all scales

AFS's Software and Hardware Sales Strategy



[Source] Company data

Direct sales focused on two types of customers with low bad debt risk

Direct sales targeting major restaurant chains

Large chain transactions that benefit from the stability of sales

stable growth

[Source] Company data

While AFS's bad debt risk has increased in the wake of the COVID-19 pandemic, the Restaurant Management System® and peripheral system equipment are being sold to profitable restaurant chains (many of which are large restaurant chains) with low bad debt risk. While there are significant advantages to receiving orders from large chains, negotiations tend to be lengthy and budgets are difficult to set.

Promotion of franchise recruitment as a café franchisor

Developing superefficient stores as our own brand for

Masters Cafe is the proprietary brand of the Masumasa Group (Fukuoka City, Fukuoka Prefecture), which operates and produces restaurants, and has designated AFS as its master franchisor in mainland Japan. AFS also operates Natural Green Cafe franchises under the AFS brand, based on the concept of "creating restaurants where people become healthier as they eat more and more of the food. These stores have achieved profitability through super-efficient store operations by fully utilizing the automatic ordering system and system equipment, and the franchise development is expected to boost overall system equipment sales and monthly sales of the "automatic ordering system. As a receptacle for all types of stores that are considering developing profitable businesses with the COVID-19 pandemic, AFS expects to consistently sell system equipment, including automatic ordering systems, and food delivery robots, while also functioning as an advertising function as a place for visitors to observe the business.

Income/expense model of Masters Cafe

Subjects	Amount	Ratio	
Monthly Sales	5,000,000	100%	
Food and Bevarage Costs	1,350,000	27%	55% is a high level, while the target is for
Labor cost	1,400,000	28%	F/L cost to be below 60%.
F/L Costs Subtotal	2,750,000	55%	Self-service cash register/automatic
Rent	500,000	10%	ordering, achieved through reasonable reduction of labor costs by making full use
FC License Fee	150,000	3%	of IT
Utility Expenses	250,000	5%	
Sales Promotion Expenses	100,000	2%	Web media, etc.
System Operating Costs	75,000	1.5%	
Other Expenses	425,000	8.5%	Consumables, sanitation management fees, cost reduction reimbursement fees, etc.
Total general management fees	1,500,000	30%	
Operating Profit	750,000	15%	While the operating profit target for a typical café is said to be 10%, 1.5 times 15% is very high
			care is said to be 1070, 115 tilles 1570 is very liight

Guiding the take-in of customers through system linkage based on a strong cooperative relationship with a free-of-charge business service company

AFS aims to improve the efficiency of its approach to mid-sized chains and below,

Looking to the future of the independent restaurant market

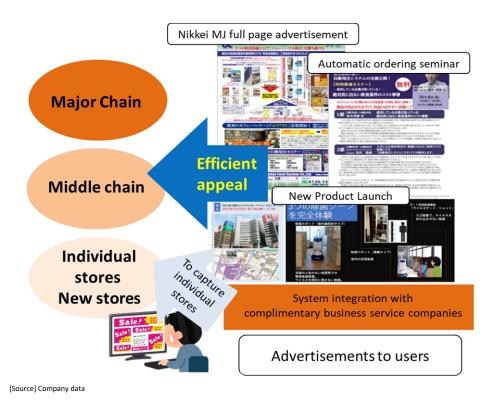
which are effectively left out of the market by the aforementioned sales strategy. Of this market, the market for individual restaurants is particularly large. One of the characteristics of the restaurant industry is that, over a 10-year period, future large chains will emerge from among these customers. 70% of AFS's current customers, who sign contracts on a monthly basis, started with between one and 10 restaurants, and it is expected that these companies will grow into future large chains.

Planting seeds for rapid future growth

Seamless collaboration to capture early-stage users

AFS will establish a mechanism to capture the market of these mid-sized chains and below in the future, and by seamlessly linking the tablets and smartphone cash registers that will replace AFS's POS system with free business service companies, it will be possible to increase the number of users in the market of individual stores that have not been served so far. In order to automatically and efficiently capture the individual restaurant market, AFS will promote strong partnerships with free business service companies that are often used by early-stage restaurants.

Market development with a view to future growth into a large chain



Develop and expand sales of products and services that respond to the new normal

Expand sales of products that are in demand even with the COVID-19 pandemic

Promote further series of AI-type robots

AFS has introduced AI-equipped meal delivery robots and sterilization robots that can walk autonomously to the market since March 2020, and in March 2021, the sterilization gate "Virus Gate Shot" was introduced to the market to create a series of products. In the development of the robot series, AFS has accumulated small-lot mass production technologies with the know-how of external manufacturers and AFS, and is planning to further develop the series and introduce new products.

Furthermore, AFS is able to develop and provide systems such as optimum lead lines and comfortable communication through its involvement in food and beverage operations over the years, enabling it to improve the customer experience and reduce manpower together with external manufacturers.

Improved customer experience and labor savings

Development of sterilizing chemical solutions

The effectiveness of the chemical solution itself is important for sterilization-type products, and AFS has obtained evidence that "Nano Platinum," for which AFS has acquired the general sales rights, has a virus inactivation effect that is superior to other companies, and will further expand sales with a view to selling only the chemical solution. The "Nano-Platinum" solution is safe and has been certified as a food additive, making it possible to commercialize it for sale in food factories, mass-production factory lines, home centers, and drug stores. In line with the future expansion of the distributor system, AFS has already begun commercialization of such products.

Safe chemicals that can be expanded throughout the food industry

Sterilization series offered by AFS



Source: Company data

Developing and launching products that can be horizontally deployed across industries/sectors

Just as the know-how gained from the catering AI robot was utilized in the sterilization robot, AFS's AI-equipped robots can be applied to other industries/sectors as well. Therefore, by accumulating technologies for small-lot mass production, AFS plans to aggressively expand sales to industries where it can expect more inquiries than the restaurant industry, in advance of the coming age of robots.

Increased speed of launching new products and services through directly managed hotels, franchise restaurants, and suppliers

Pursuing Highly Difficult Automatic Ordering and Ingredient Losses through Hotel Management Support

AFS manages and operates the Natural Green Park Hotel, which also serves as a demonstration store for AFS's products and services, and has installed and is operating all of its products in the hotel. This has led to an improvement in AFS's ability to propose automated ordering and food loss elimination systems, etc., which were said to be impossible for hotels, and is expected to contribute to the early introduction of withcorona and after-corona products and services amid the prolonged period of new coronary disease infection.

Contributing to tourism in with-Corona and after-Corona

Expansion of Café Franchises Increases Opportunities for Problem Extraction and Demonstration Testing

The expansion of the Masters Café franchise, which AFS is expanding with the aim of consistently increasing sales, will increase the number of stores where AFS products and services are used to the maximum extent and where super-efficient store operations are carried out. The issues that will be identified in these cafes are cutting-edge issues that AFS, and by extension the food and beverage industry, has not been able to solve in the past, and this will provide an opportunity for the development of new products and services. In addition, the number of places to experiment with the products and services developed in this way will increase, and the speed of their introduction is expected to improve.

Expansion of franchises to increase the speed of new product and service launches

Proposing new services through a menu database of providers

ASF has been providing information systems and service infrastructure to numerous restaurants for more than 30 years, including the Masumasa Group, which has been using AFS systems for a long time and operates various types of restaurants as well as developing Masters Cafe. By utilizing the menu database it has acquired as a result, ASF will be able to offer further proposals related to restaurant management support. This would also enable the further development of another concept franchise brand that is overwhelmingly as efficient as Master's Cafe.

Sustainability

Promoting the SDGs in the Food Service Industry through Automated Ordering Systems

AFS Envisions the Future with Food Loss Reduction as the Key

According to AFS's disclosures, the following activities fall under the SDGs: AFS not only realizes food loss reduction, but also ensures proper delivery and labor savings in the process. Furthermore, this labor saving will support the improvement of service, which is the original purpose of work in restaurant management, and thus will serve as a foundation to support future restaurant management.

SDGs to contribute



AFS is contributing to a fundamental reduction in food loss, such as expiration dates and waste caused by over-ordering.



The reduction of over-ordering and the reduction of the number of deliveries have contributed to a dramatic reduction in the emissions and CO2 emissions generated during delivery.

AFS is also contributing to a cleaner environment by reducing the amount of methane gas generated from landfills where it is disposed of.



AFS's business model is based on the concept of "a company that is able to provide the best service to its customers," and AFS is committed to providing the best possible service to its customers.



The rationalization of ordering by patented technology will surely continue to innovate and develop along with its operational know-how, all of which will serve as the foundation for industrial and technological innovation.



The use of the right amount of ingredients in the right quantity contributes to minimizing the burden on the global environment in the context of our responsibility to produce and use.

Supporting What Restaurants Really Want to Do by Providing Various Automation Services

Society 5.0, a human-centered society

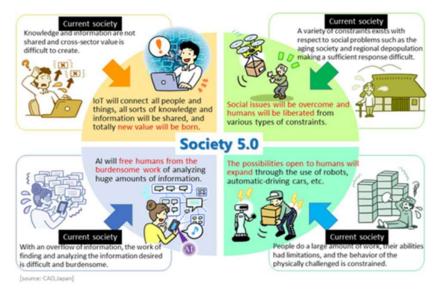
According to the Cabinet Office, "In the past, the economy and organizational systems were prioritized, resulting in disparities in the goods and services that individuals receive based on their individual abilities, etc. In Society 5.0, Al and robots will be able to perform tasks and adjustments that were previously performed by humans and provide support on their behalf, freeing people from daily tedious and unskilled tasks and enabling everyone to lead comfortable, energetic, and high-quality lives. ¹.

Eliminating the Complexity of Relating Food to People

The products and services offered by AFS can be said to eliminate the complexity of the relationship between food and people. The Restaurant Business Management System® and automated ordering system realize the sharing and coordination of information between people and food, providing new value in the form of a more essential dining experience. In addition, AI robots for food delivery and sterilization robots are expected to provide the kind of restaurant that restaurant operators want to realize, while drastically reducing the number of personnel needed in the restaurant.

Achieve management's goal of store operations

AFS Activities to Realize a Human-Centered Society



Source: Compiled by JPR from figures and tables prepared by the Cabinet Office.

1. From the Cabinet Office HP "Society5.0" (https://www8.cao.go.jp/cstp/society5_0/)

Stock revenue generation through monthly fees, equipment leases, and franchises

Stock revenue is a source of further development and growth

AFS's monthly billing for cloud services, leasing of system equipment, and royalties from franchised outlets are all business models that generate stock revenue. Therefore, business expansion is directly linked to the accumulation of earnings and capital, and is expected to create a cycle that will further promote the development of new products and services and market exploration.

Corporate Governance Structure

Organizational Design

Board of Directors

The Board of Directors consists of two representative directors, two directors (excluding directors who are members of the Audit and Supervisory Committee), and four directors of the Audit and Supervisory Committee. The Board of Directors consists of eight members (as of the date of submission): as defined in Article 399-3 of the Companies Act).

Audit Committee

The committee consists of four members (all outside directors), a EV manufacturer manager, certified public accountants /tax accountants, and a lawyer/judicial scrivener, and is expected to perform a supervisory function based on their different knowledge.

Compensation System

Incentive compensation for directors

Performance-linked compensation is adopted.

3. Overview

Company Overview

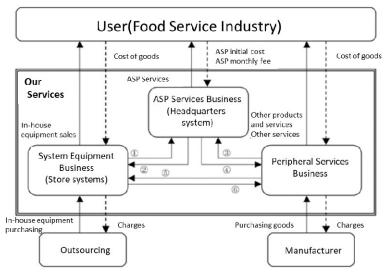
Company Name	ame ALPHAX • FOOD • SYSTEM CO.,LTD					
Establishment	December 9, 1993 (Established: March 1987)					
Representative Takamori Tamura, Chairman of the Board and Representative Director; Yumiko Fujii, President and Representative Director						
Head Office Location 128 Sanyoonoda, Chizaki, Yamaguchi (in Ejio park)						
Capital	665,461,919 yen (as of September 30, 2021)					
Number of Employees 107 (as of September 30, 2021)						
Fiscal Year End	September					
For Food Service Companies 1. Sales and support of the "Restaurant Business Management System(R)," an ASP/cloud-service 2. Planning and sales of system equipment 3. Nationwide maintenance service for hardware and software 4. Operation of hotels and restaurants for development and verification of in-house prod						
Date of Listing	September 15, 2006					
Stock Exchange Listing Tokyo Stock Exchange Growth Market						

Source: Complied by JPR from Company Data

History

Year	Month	Contents
1987	3	Begins nationwide sales of the industry's first "Restaurant Business Management System" for restaurant companies as the OA software development division of Alphax.Inc
1990	4	Sales subsidiary Alphax Brain System Inc. is established in Tokyo.
1993	12	Alphax Food System becomes independent from Alphax's OA Software Development Division through an MBO.
		Alphax Food System Co. Ltd. is established and ceases wholesaling and tie-ups with various manufacturers.
1995	10	AFS Higashi-Kyushu is established.
1996	10	AFS Hiroshima is established.
2006	9	Listed on the Nippon New Market Hercules (now JASDAQ).
2007	10	"Order Shot" order entry system is granted a technical patent.
2012	7	Yamaguchi head office relocated.
2016	7	Business alliance with LINEPay Co.
	12	AFS Marketing is established as a joint venture with Hikari Tsushin.
2017	9	Completed construction of Japan's first off-grid head office and new data center.
		Acquisition of Natural Green Park Hotel real estate and business transfer.
		Acquisition of CRM business of Unity Marketing Solutions Inc.
	12	Formed business alliance with Glory Co.
2018	11	Formed a business alliance with Nichiei Intec, Inc. to enter the energy cost reduction business.
2020	6	Obtained patent for self-ordering system, self-ordering management method, and "Self Shot".
2021	3	Formed a business alliance with Act Pro Corporation.
Source: Complied	by JPR from	Company Data

Projection Diagram



- ①Introduction of ASP services to effectively utilize data stored in system devices ②Introduction of system equipment for efficient use and operation of ASP services
- ③Introduction of ASP services to effectively utilize data accumulated in system equipment manufactured by other companies
- Introduction of online terminals manufactured by other companies for efficient operation and utilization of ASP services
- ⑤Introduction of optional equipment for effective use of system equipment
- 6 Sales of supplies for system equipment

Source: Complied by JPR from Company Data

Major Business Alliances

Year	Month	Target Company	Purpose
2016	7	LINE Pay Corporation	For sales cooperation aimed at expanding the number of LINE Pay payment outlets in the restaurant industry.
2017	8	Sheng Hero Corporation	AFS is the exclusive Asia-Pacific distributor for NORDICID, a Finland-based company with an established reputation for RFID communication devices and technology. The system is expected to dramatically shorten the accounting processing time and reduce the workload of accountants compared to conventional terminals.
2017	12	GLORY LTD.	By jointly developing a highly specialized "self-checkout" system for restaurants with Glory, which has the top share of the money system equipment market, we expect to increase the introduction of self-checkout systems by alleviating labor shortages in the restaurant industry and improving customer convenience, thereby achieving efficient business cooperation and enhancing mutual corporate value, and we also expect synergies in LINE Pay settlement. To anticipate synergistic effects in Pay settlement.
2018	11	NICHIEI INTEC CO., LTD.	To conduct technical cooperation with electrical coordination technology and sales cooperation for services of NICHIEI INTEC CO. LTD
2021	3	AcPro Co.,Ltd.	To provide a means of maximizing profits for mutual customers by introducing the cost optimization business provided by ActPro to AFS's customers.

4.Business Segment Information

ASP Service Business

Providing "One-Stop" Service to the Food Service Industry

Business Overview

AFS provides ASP/package system business, system equipment business, and peripheral service business in an integrated manner, with ASP service business as its core business for the restaurant industry, which is the customers.

Business Description

ASF	ASP/Package System Business	Providing ASP service business with ASP/package business at its core
ASP Service Business	System Equipment Business	System equipment business including POS, order entry systems and table order systems
ness	Peripheral Services Business	Sales of supplies, equipment repairs, and products related to AFS's systems, as well as energy cost reduction business.
Нс	otel-related Business	Management and operation of Natural Green Park Hotel and operation of restaurants and cafes in order to implement and operate a total system of ASP service business, system equipment business, and peripheral service business.

Source: Company data

Restaurant Business Management System Service Overview

ASP/Packaged System Business Main Services

Service Name	Roles	Service Overview
Restaurant Management System®Basic System	Business Management	 Food loss optimization (allocation of food and human resource costs) with the industry's first "Sales Management" + "Production and Recipe Management"
Fully automated ordering system	Fully automated ordering	 The system organizes theoretical inventory and automates ordering of food ingredients and supplies. Allows replenishment orders to be placed while taking recipes into consideration.
"Picnic" food service, lunch box and catering business support system	Food service, box lunch and catering support	 The system also allows for the combined consideration of nutritional and cost calculations, which have traditionally been performed separately, and enables confirmation of both nutrient values, balance charts, and the cost of implementation during the preparation of the menu. The system can create and simulate weekly and monthly menus.
Nutrition analysis support system	Nutrition analysis	 To be able to analyze recipes to determine the neutral, acid, alkaline, and calorie content based on the 5th Revised Table of Food Composition, as well as to analyze all other ingredients and nutrients in a recipe. The results of the analysis can be graphed to visualize the nutritional balances. Allergens in menus can be confirmed, which is useful for safe menu planning.
Sushi conveyor belt sushi support system "Kururin"	Conveyor-belt sushi support	• The number of single items can be automatically calculated based on the number of plates and the inventory of ingredients once a month. • The system solves inventory and ordering in the form of "single-item management," which has been considered the biggest problem in the management of conveyor-belt sushi restaurants.
Hotel business food control system "FOOD STAFF"	Hotel business support	 The first system in Japan to systematize the food and beverage operations of the hotel business industry. The system also reduces food loss and realizes cost reductions. The system also improves the working style of the hotel business industry, which tends to be a labor-intensive workplace, by making it visible.
CK and distribution center system	CK and departmental flow management	The core system of the Restaurant Business Management System®. This department orders foodstuffs from suppliers to all restaurants.
Store inventory and order quantity online collection system "Inventory Detective"	Store inventory/order quantity online collection	• The system automatically calculates inventory problems ("packing", same ingredients stored in several locations, purchase price fluctuations and their inaccurate unit price calculation problems, etc.). • The system is linked to the headquarters to enable accurate inventory and reduce paperwork.
"Timely" attendance tally management system	Attendance management	 Manage labor costs, the two largest costs in a restaurant, to reduce costs. Aggregation is possible for all types of business conditions and payroll systems. Company-wide system can be built from stores to offices and factories.
Web order system "e-food order"	Web Ordering	 Accurately covers various reservation methods (PC order, cell phone e-mail, autocall, fax) and three order styles (takeout, delivery, home delivery) Full utilization of sales and customer data.

Source: Complied by JPR from Company Data

Outline of Main Services of System Equipment Business

Service Name		Service Overview
Self-registering system		 Provides self-service checkout services for customers. Promotes self-service in restaurants to address issues such as personnel shortages, rising labor costs, and changes in work styles.
Cashless Systems POS Proxy Collection Service		 Enables simplification of the accounting process and prevention of errors in restaurants where accounting is complicated.
		 AFS's "AFS Collection Technology Center" collects POS information from stores online on behalf of the headquarters and offices. After the data is collected, it is compiled, processed, and analyzed on a dedicated server, and then immediately fed back to the customer.
	FOOD GENESIS 21" Super Multifunctional PC-POS Software"	 All functions (general accounting processing, online data collection, online distribution, billing and payment erasure, time and attendance data aggregation, nutrition chart graph sheets, publishing, attendance forecasting and shift management, intranet ordering, inventory and purchasing, intranet bribing, disposal and expense functions, email sending/receiving, and client database collection and distribution functions)
Store Information	"Order Shot"	 One ultra-high-performance devicethat performs 8 functions (general order device, table order device, inventory device, order placement device, inspection device, attendance device, traceability device, and questionnaire device).
System	"Handy shot"	 A single handheld device can perform 6 functions (standard order device, table order device, survey device, inventory, order, inspection device, attendance device, menu commentary, and traceability device).
	"Table Shot" "T	
	"e-Acting Manager"	 POS Leasing Package Identification of loss in management by simply inputting data

Source: Complied by JPR from Company Data

Outline of Main Services of System Equipment Business

Service Name		Service Overview	
Customer Attraction and Sales Promotion	Pre-paid original cards	 Server-managed prepaid gift cards that improve cash flow while promoting branding and customer attraction. Low installation costs and quick turnaround time for acquiring new customers and increasing sales. 	
Service	MAP Marketing Support System	Provides effective and immediate sales tools (area marketing/trade area analysis data) for the restaurant business that can be used as a benchmark for accurately promoting restaurant openings and regional sales strategies, etc.	
Alpha Net Intranet Business System WWW Server Service		• The system allows CK/logistics centers to collect information from all stores at once by inputting information on orders, purchases, inventory, attendance, expenses, sales, and EDI generated at stores via the Internet from PCs installed at the stores through a WWW browser. Automatic conversion to mission-critical systems such as "Restaurant Business Management System®" and "Attendance Management System" is also possible.	
		This service is an epoch-making service that realizes the construction of an "information network" quickly, easily, and at a low cost.	
Service Shot		The AI onboard the robot memorizes its stationary position and detects obstacles (tables, chairs, people, walls, etc.) when serving food, while the robot sensor detects the obstacles, and the AI guides the robot along the walking route.	

Source: Complied by JPR from Company Data

Hotel Related Business

Operation of a hotel that also serves as a demonstration store for AFS's products/services

Natural Green Park Hotel

AFS manages and operates the Natural Green Park Hotel and restaurant/cafe in order to implement and operate a total system of ASP/package system business, system equipment business, and peripheral service business.

The Natural Green Park Hotel also serves as a demonstration store for AFS's products and services, and is managed and operated by AFS, and all of its products are installed and operated in the hotel.

Franchise business - Natural Green Cafe -

Provides full operational support for advanced IT-based management that eliminates the need for most daily operations as well as managerial duties

5. ROIC analysis

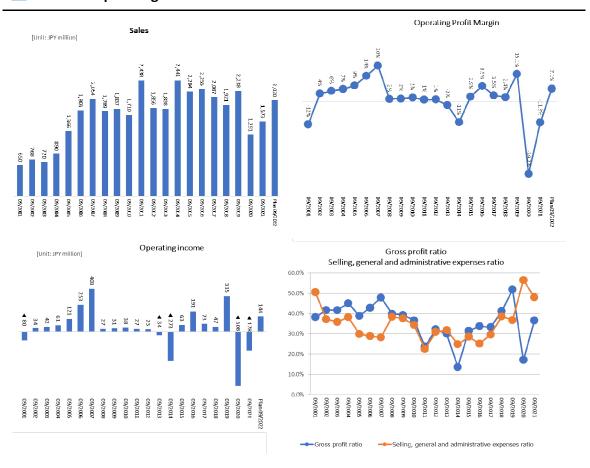
Net Sales
Operating
Income Trend

Aiming to return to profitability for the third consecutive fiscal year of revenue growth

Escaping from the decrease in demand and supply disruptions caused by the Corona disaster

Since its listing, AFS has been experiencing sluggish performance, with repeated declines in sales and profits. In particular, in FY09/2020, the company posted an operating loss as a result of its gross profit margin falling far below its SG&A ratio. In this context, the company plans to return to profitability in FY9/2022 by getting out of the situation where it is unable to procure system equipment due to a shortage of semiconductors while the number of stores operating under the Corona disaster decreases.

Net SalesOperating Income Trend



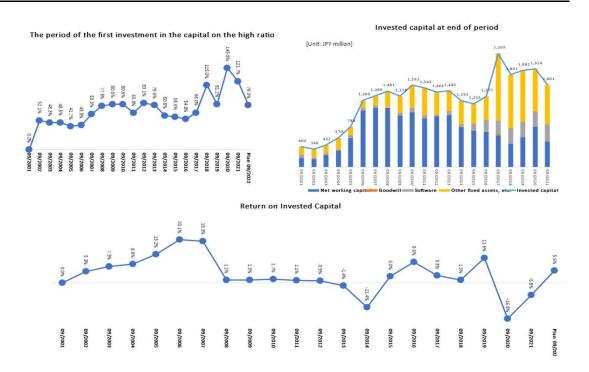
Trends in ROIC

ROIC has been stagnant since listing

Sales growth to decrease ratio of invested capital to sales

AFS had achieved ROIC improvement until FY09/07, with ROIC reaching over 20% when the company was first listed, but since then it has been stagnant except for one period. Since invested capital is on a declining trend, it is considered urgent to reduce the ratio of invested capital to sales through sales expansion and to improve ROIC accordingly.

Trends in Ratio of Invested Capital to Sales and ROIC



6. Review for the third quarter of the period September, 2022

Company-wide information

Food Service Companies Management Difficulties

New investment slow.
Steady additional investment

Declining revenues Decrease in losses

Summary of Business Results

Business Environment

In the restaurant market, our main sales destination, the impact of the Corona disaster has hit hard, and restaurant companies, our customers, continue to face very difficult conditions with bankruptcies, store closings, and declining sales.

Business Results

The willingness of major customers to make new investments is sluggish. Although additional investment from existing users has been steady, the company has been unable to complete deliveries as originally planned due to difficulties in procuring hardware products caused by the shortage of semiconductors.

Operating Income/Loss

Sales were JPY 971 million(-22.8% YoY), operating loss of JPY 252 million(vs. operating loss of JPY 36 million in Q3 FY03/21), recurring loss of JPY 286 million(vs. recurring loss of JPY 110 million), and net loss of JPY 291 million(vs. net loss of JPY 116 million), representing lower sales and loss.

Operating Results (Cumulative)

FY	Sales(YoY	')	Op. Profits	(YoY)	Ord. Profits	(YoY)	Net Profit(YoY)
	JPY million	%	JPY million	%	JPY million	%	JPY million	%
Actual FY Feb 2022	971	-22.8%	-252	-	-285	-	-291	-
Plan FY Feb 2022	1258	29.2%	-36	-	-110	-	-116	0

^{*}Comprehensive income FY February 2022 \triangle 170 million yen

Source: Prepared by JPR based on company data

Segment Information

Newly Opened Franchise Stores Increase Sales

ASP Service Business

Sales were JPY 934 million(-23.7% YoY) and segment loss was JPY 214 million(segment loss of JPY 17 million in the same period of the previous year) due to increased efficiency from the automatic ordering system for food ingredients and requests for automation from each system service.

Hotel-related Business

In June, the company opened Japan's first restaurant specializing in rice burgers, which was developed by an ASJ user and converted to a fully-automated reservation acceptance system DX, and sales increased to JPY 68 million(+7.6% YoY), resulting in a segment loss of JPY 38 million(vs. segment loss of JPY 18 million in the same period of the previous fiscal year).

ASP Services Business Breakdown

	New monthly service bookings and expansion of
	services to existing customers and sales of the
ASP Service Business	Restaurant Business Management System (R)
ASP Service Business	resulted in sales of 558 million yen (down 3.4%
	YoY) due to the monthly price discount caused by
	the Corona disaster.
	Sales of conventional POS systems, order entry
	systems, and table ordering systems, as well as
System Equipment	sales of robots in the new business, were almost
Business	in line with originally planned deliveries, resulting
	in sales of 344 million yen (down 37.2% y-o-y).
	(down 37.2% y-o-y)
	Sales of partner products, integration such as
	equipment repair, and sales of supply products
Peripheral Services	resulted in net sales of 32 million yen (down
Business	67.5% YoY), along with an increase in sales of
	ASP/package systems, which are software
	products.

Source: Prepared by JPR based on company data.

7. External Environment Analysis

Market Environment

Market Analysis

Many challenges in the restaurant industry, but favorable environment for AFS

<u>Declining trend in size, number of restaurants and customers, but</u> increasing trend in unit price

Food Service Industry Market Trend Survey 2021 Annual Results Report¹ published by the Japan Food Service Association shows that overall sales in 2021 will be 98.6% of the previous year's level and 83.2% of the level of the year before last, indicating that the market is shrinking and that both the number of restaurants and the number of customers have been decreasing in recent years, while the price per customer has continued to increase since 2013. This makes it all the more important for restaurant operations to be able to keep costs down, and AFS's information system and service infrastructure will play a very significant role in reducing food loss and saving labor, assuming AFS continues or increases its restaurant operations. Similarly, AFS-operated Masters Cafes are considered to be in a favorable environment to develop franchises because of the streamlining in food preparation while deploying the full range of ASF's products."

1. http://www.jfnet.or.jp/files/nenkandata-2021.pdf

Low profitability in the food and beverage industry is partly due to high SG&A ratios

According to the 2019 Ministry of Finance Corporate Statistics Survey, the food and beverage service industry has an extremely high gross profit margin, but also a very large SG&A to sales ratio, resulting in a lower operating profit to sales ratio than other industries. The Corona vortex has made this problem more clearly apparent.

Conversely, if we can achieve a SG&A-to-sales ratio of 35%, which is comparable to the service industry, there is potential to improve the operating margin by more than 20% points from the current level of 62%. In particular, since our services are strong in labor savings related to personnel not involved in cooking, we see an opportunity in terms of contributing to the improvement of the SG&A ratio.

PEST analysis

Overall favorable environment with manpower saving as the key

Politics

Politics	Positive Factors	Methods to Promote Food Loss Reduction
Politics	Negative Factors	_

Food Loss Reduction Promotion Act

Japan emits approximately 6 million tons of food loss annually, which is mentioned in the 2030 Agenda for Sustainable Development (UN General Assembly resolution in September 2019). In light of this, the government launched the Council for Promotion of Food Loss Reduction and enacted the Law on Promotion of Food Loss Reduction in 2019; the goal was set to halve business- and household-based food loss in FY2030 compared to FY2000. The basic measures include: 1) promotion of education and learning, and dissemination and enlightenment of knowledge to consumers and businesses, 2) support for efforts by food-related businesses, 3) awards for outstanding achievements in food loss reduction, 4) surveys on the actual status of food loss and research on effective methods to reduce food loss, and 5) research on the effective reduction of food loss. (5) Collection and provision of information on advanced efforts to reduce food loss, (6) Support for food bank activities, and surveys and studies on the responsibilities that arise from the provision of food for food bank activities.

Economy				
-	Positive Factors	Corona DisasterMinimum Wage Increase		
Economy	Negative Factors	Corona disaster.Resource price hikes		
	raciois	- Resource price filkes		

Sluggish sales due to coronavirus infection

Since March 2020, spending on food service has declined significantly due to voluntary restraint from going out as a result of the spread of coronavirus infection; overall sales in the food service market in 2020 were 15% lower than in 2000, the largest drop since the survey began in 1994. Restaurants had the highest number of nationwide bankruptcies affected by infectious diseases, with 205 as of the end of March 2021. In 2022, demand for food service was on a recovery trend due to the easing of infectious disease control measures, with overall sales at 113.5% and 91.9% compared to 2019, before the corona disaster. On the other hand, demand for evening dining out is still lagging behind recovery, perhaps due to lifestyle changes caused by the coronary disaster.

Minimum wage increase

"Action Plan for Workplace Reform" mentions as follows. "The minimum wage will be raised at an annual rate of about 3%, while taking into consideration the nominal GDP growth rate. This will bring the national weighted average to 1,000 yen. In order to achieve such an increase in the minimum wage, support will be provided to small and medium-sized enterprises (SMEs) and small businesses to increase their productivity, etc., and to improve their trading conditions." It is stated that since the minimum wage increase will lead to an increase in labor costs, restaurants will be required to reduce labor costs by saving labor. This move is expected to provide a tailwind for the introduction of our system.

Rising material prices due to inflation, Japanese yen depreciation, etc.

While AFS services cannot directly solve this problem, they can help by reducing essential costs for restaurant operations through optimization of food material procurement and labor cost reductions. However, AFS services can help solve this problem by reducing essential restaurant management costs through optimizing food procurement and reducing labor costs.

Society					
Society	Casiatu	Positive Factors	Declining birthrate		
	Society	Negative Factors	Decrease in opportunities to eat out		

Changes in the ratio of job openings to job applicants

Due to the declaration of a state of emergency and the issuance of a ban on the serving of alcoholic beverages, the relatively high job-to-job ratio in the restaurant industry dropped significantly, but compared to all industries, which remained almost flat, the ratio of job openings to job applicants bottomed out from April to June 2021 and rose again, and recently, the restaurant industry is experiencing a growing labor shortage.

The key is to keep stores in operation

AFS's services support restaurant management through cost reductions by optimizing purchasing and reducing labor costs, but cost reductions are meaningless if the decline in eating out opportunities makes it impossible to manage the restaurants in the first place. Furthermore, AFS sells directly to large chains, and it is a difficult environment to expect the pre-growth stores to grow into large chains.

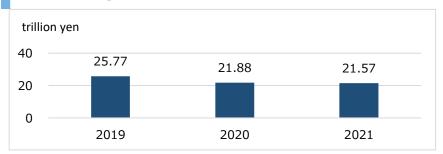
Technology Positive Factors Technology Negative Factors Factors Factors Foodtech Building lasting relationships with customers —

The food sector is expected to see more integration with technology as so-called food tech (smart restaurants, food tech, smart kitchens, virtual restaurants, ghost restaurants, etc.) progresses in the future.

Market Scale

Market Scale

TAM: Shrinking to 83.2% from 2019



Source: Compiled by JPR based on "Foodservice Industry Market Trend Survey 2021 Annual Report," Japan Food Service Association
The sales situation in the food service industry in 2021 is shrinking by 98.6% yearon-year and 83.2% year-on-year due to the Corona disaster. Among these, fast food, which benefits from takeout and delivery services, continues to expand by 104.8% year-on-year and 101.8% in comparison to the year before last, and is expected to recover and expand through a change in business structure in line with consumer lifestyles.

SAM: Expanding with robots, sterilization, and franchise development

The IT solutions market for the food service industry continues to expand.

According to the "IT Solution Market by Industry 2019" and forecast for FY2022¹ by Fuji Chimera Research Institute, Inc. , the market size of IT solutions for the restaurant industry is JPY 42.2 billion. Athough the introduction of mission-critical systems has run its course for large and medium-sized chains and growth is slowing, the convenience of reservation management and availability management, which has been introduced mainly by individual restaurants and small chains, is gaining recognition, and the market is expected to expand in the future.

1. https://www.fuji-keizai.co.jp/market/detail.html?cid=19004&view type=2

<u>Coffee Shop Market Shrinks, Franchise Development Closest to Fast</u> <u>Food in Growing Market</u>

The market size of coffee shops was 805.5 billion yen, 69.4% of the previous year's level as of 2020 due to the Corona disaster, but has already shown a slight recovery to 100.1% of the previous year's level as of 2021. The development of franchises of Masters Café, which can provide takeout and almost completely noncontact service, is considered to be similar to fast food, and therefore in a growing market.

Catering Robot Market Growing Rapidly

The market for food delivery robots is expected to grow to about 20 billion yen by 2026². Although the market will continue to grow by nearly 200% year-on-year, the number of restaurant outlets to which they will be introduced is currently decreasing, and strategies that anticipate an accelerating red ocean are likely to be required.

2. Deloitte Tohmatsu MIC Research Institute Co., Ltd. "Service Robot Solution Market Outlook FY2022 Edition." (https://mic-r.co.jp/mr/02360/)

SOM: Recovery through business domain expansion

AFS's main customers are food service companies, which were hit hard by the Corona disaster in FY9/2020, but sales are gradually recovering in FY9/2021 due to labor-saving demand and AFS's entry into the sterilization market. Although it will not reach the level before the Corona disaster, a steady recovery is expected.

Sales by Business Segment



Source: Complied by JPR from Company Data

Five Forces Framework

Threat of New Entrants

In the information system and service infrastructure specialized for the food industry, AFS stands at No. 1 with a 16.8% share, thanks to its expertise cultivated over 30 years and knowledge of restaurant management. In addition, the fact that the top 50% market share is held by five companies suggests that the barriers to entry are high.

Threat of Substitute Products

Since AFS products and services replace labor in restaurant operations, the threat of substitutes is considered to be minimal.

Bargaining Power of Suppliers

Sellers to AFS will be hardware suppliers. The threat is considered relatively high, as they are affected by the shortage of semiconductors.

Bargaining Power of Customers

The buyers, restaurant operators, will introduce AFS products and services mainly to improve efficiency and reduce labor costs. Therefore, the threat to buyers is considered to be relatively small.

Competitive Rivalry within an Industry

AFS has the No. 1 market share in an environment where the top 50% market share is dominated by five companies. The fact that AFS holds two patents that have a significant impact on the establishment of core systems in the restaurant industry also gives it an advantage in the industry.

Appendix 2. For those new to JPR reports

GCC Management™ Analysis

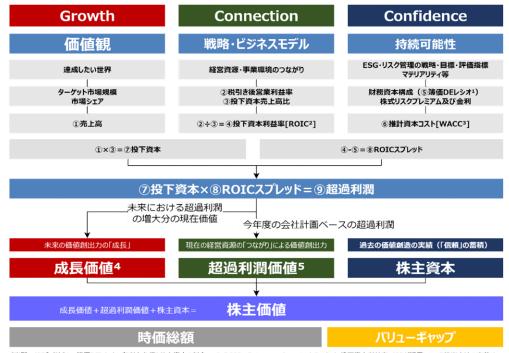
Visualize the value gap between theoretical shareholder value and market capitalization

Analyze by the three elements of Growth, Connection, and Confidence.

A framework for directly linking qualitative stories to shareholder value

This report analyzes corporate value from the perspective of GCC Management ™, a framework developed by J-Phoenix Research Corporation ("JPR"), emphasizing three elements: Growth (sales growth), Connection (improved human and business connections = higher return on capital), and Confidence (improved trust = lower business risk). The following chart shows the overall picture of the GCC Management ™ framework. The following diagram shows the overall picture. The qualitative future story is linked to financial indicators, which are finally integrated to estimate shareholder value. Using the excess profit method (see "Appendix 2. Basis of Calculation" at the end of this report), JPR estimates the final theoretical shareholder value and visualize the value gap by comparing it with the market capitalization.

GCC Management™ Analysis Framework



[出所: JPR] [注]1. 薄価DEレシオ: 有利主負債と株主資本の割合。 2.ROIC: Return on Invested Capital. 投下資本利益率、JPRが採用している資出方法の定義は、 巻末72.参考資料/参照。3. WACC:Weighted Cost of Capital. 加重平均資本プスト、JPRが採用している資出力方法の定義は、巻末72.参考資料/参照。4. 成長価値=X年 までの認過料が開始分かえ、金値の宏積現在価値、糸分両値は、超過利潤の増分・WACCで費出、その金額の現在価値をWACCで割り出て資出、成とラナリオが建定するX年まで の未来累積値。4. 超過利潤価値=今期会社計画に基づく超過利潤の永久価値。今期会社計画、及び期首投下資本から算出した超過利潤をWACCで割って試算。

Visualization of value gap through 10-year growth scenario analysis

Comparison of increase in shareholder value by year and market capitalization

The potential increase in shareholder value generated by a 10-year growth scenario based on the future story is visualized for each year and compared to the market capitalization. This allows us to visualize how many years of the future story are reflected in the market capitalization. 10 years of shareholder value is expected to be reflected in the market capitalization as the expectations for the achievability of the 10-year future story increase. The difference between the market capitalization and the estimated shareholder value reflecting up to 10 years of future story is the estimated upside potential. As investors' expectations of the feasibility of the future story are raised by the specific current performance, the likelihood of the realization of that value gap increases.

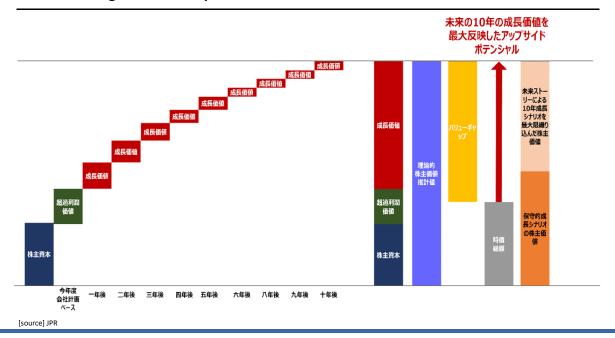
Visualize the value gap between theoretical shareholder value and market capitalization

Conservative growth scenarios and scenarios reflecting changes in fut

This analysis is useful when the firm's strategy undergoes significant change. As shown in the figure below, it is also possible to visualize separately the growth potential under the conservative scenario and the growth potential under the change. Shareholder value without incorporating change represents a conservative amount.

Visualization of various scenario analysis

Visualizing the Value Gap



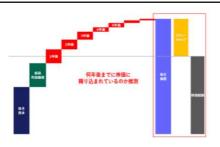
Appendix 2. Basis of Calculation

Corporate value estimated by use of ROIC and excess return

Excess return analysis framework

Excess profit or economic value added is globally used as an indicator to estimate corporate value, evidenced by its adoption by Kao Corporation, a Grand Prix winner of the Tokyo Stock Exchange Fifth Corporate Value Improvement Award (FY2016). In the calculation of excess return, corporate value can be broken down into four elements: invested capital, excess return value, growth value, and non-business assets. This facilitates a better understanding of the structure that creates corporate value. A company might be overvalued or undervalued when its market cap is higher or is lower than its theoretical corporate value, respectively. The contribution of each year's corporate value can be visualized in the following figure, wherein shareholders' equity is simply represented as a sum of invested capital and non-business asset, subtracting interest-bearing debts. The figure below allows us to estimate how many years of growth might be incorporated into the stock price.

Breakdown of corporate value using excess return



[source] JPR

Estimated excess return is profit that exceeds investors' return expectations against invested capital. Its present value is "excess return value," while a potentially growing portion of excess return is "growth value." Moreover, assets not used in business are added as non-business asset value in estimating a theoretical corporate value. Theoretically, the estimated corporate value using excess return should be the same as the value estimated using the discount cash flow (DCF) model. This report calculates excess return by using the following figures in a simplified manner.

②Excess return = NOPAT − Invested capital X WACC

Net Operating Profit After Tax (NOPAT) = Operating profit X (1 - Effective tax rate)
□Invested capital = Total assets – Non-business assets – Current liabilities excluding Interest-bearing debt

Non-business assets = Cash and deposits exceeding 10% of sales + Short-term investment securities + Investment securities + Deferred gains or losses on hedges + Land revaluation difference + Foreign currency translation adjustments

②Cost of shareholders' equity=0.5%+5%Xβ

 $\mathbb{B}\beta$ = Slope of a linear regression line of five-year daily returns of TOPIX and the stock price of the target company

②E = Market cap at the time of calculation

■D = Short-term interest-bearing debt + Long-term liabilities + Minority interests in the latest financial statements at the time of calculation

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