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Value Creation Story



SPECIAL FEATURE 1

ECUSSION

Discussing the "Fthical F-Commerce" That ASKUL Aims to Achieve through Sustainability Transformation

ASKUL is currently promoting a sustainability transformation (SX), in which it will transform its business model with a focus on sustainability. Looking beyond the completion of its SX, ASKUL is setting its sights on realizing "ethical e-commerce," which seeks to resolve various social issues, including those pertaining to business. In this section, ASKUL President and CEO Akira Yoshioka and the Company's Sustainability Advisor Peter David Pedersen have a conversation regarding what SX and ethical e-commerce entail and how these concepts influence the evolution of ASKUL as a company.

Continuously Bringing Delight

Making Our Business Model Itself Sustainable

Yoshioka: I believe that SX involves the simultaneous achievement of corporate sustainability (sustainability of a company's earnings power) and social sustainability (sustainability of society in the future). In other words, SX aims to achieve a "trade on" in which we transition to a business model that can both maximize profits and contribute to sustainability without any compromise between the two. In terms of ASKUL's business, SX means that we make such efforts as visualizing the environmental friendliness of our products, expanding the number of environment-friendly products, promoting resource-saving packaging, and reducing CO₂ emissions during product deliveries through the use of electric vehicles, and generating profits while doing so.

I am of the opinion that it is important to have our customers feel that they are contributing to sustainability simply by using our services. To that end, we need to pursue a business model transformation that is as extensive as changing the operating system of a computer.

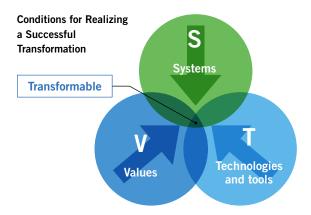
Pedersen: Transformation is an important word that relates closely to the Sustainable Development Goals (SDGs). Transformation in the sense of SX refers to change that is qualitative, not superficial.

I believe there are three drivers for realizing a genuine transformation, whether it be of a company, government, or even a country, and I refer to these drivers collectively as "SVT." The "S" stands for "systems," including regulations and business models; "V" for values; and "T" for technologies and tools. When promoted in unison, these three drivers will lead to a successful transformation, but if promoted separately, they will lead to no substantial change at all.

Northern European countries have excelled at aligning these three drivers to transform governments and industries. whereas Japan has struggled to do so. This is why there has been a delay in realizing a true transformation in Japan. Recently, however, I feel that the government and industrial sector in Japan have finally joined in lockstep toward realizing a true transformation.

When it comes to SVT within corporate activities, companies need to appropriately consider the business models they employ and the technologies they use and take steps to ensure that initiatives toward sustainability lead to enhanced corporate value and competitiveness. Currently, many companies are struggling to do so, as attempting to achieve social sustainability while increasing profits has the potential to significantly raise the prices of their products. This is not an issue that a single company can resolve, thus collaboration between industry and government is absolutely essential. Recently, we have started to see a trend toward such collaboration, and I feel that Japan is currently in a transitional phase.

Yoshioka: To resolve these kinds of issues, which stand in the way of transformation, it is important for companies to have



the ability to make breakthroughs and take decisive action. For example, at ASKUL, we built a platform for the recycling of clear plastic folders. Ordinarily, one might think that there is no need to do something so troublesome. However, we decided to pursue this initiative, and once we did, we found that many other companies had an interest in following suit. As time went on, the number of companies participating in our clear plastic folder recycling platform continued to increase. I received an unexpected comment from a member of one participating company saying that they were glad to have more content to write about in their integrated report. Pedersen: For me, the only way to truly make breakthroughs is to take action. One of the most unfortunate aspects regarding the organizational culture of Japanese companies is that there tends to be a large number of people who search for reasons why an innovative initiative or activity cannot be implemented. I have always considered such people to be part of the "no-go tribe." To remedy this situation, corporations need to increase the number of people who are part of a "can-do tribe," or in other words, people who will look for ways to take on a challenge, no matter how difficult it may seem.

Taking action is the first step in creating a so-called ripple effect. As one must throw a stone in a pond to cause ripples to spread, breakthroughs cannot be made without an action being taken.

Adopting Ethics as the Prerequisite for **Corporate Value Enhancement**

Pedersen: Mr. Yoshioka, could you please tell us about the "ethical e-commerce" for which you are advocating? Yoshioka: I believe that, going forward, ethics will become the most important aspect of a corporation. Specifically, it will be

Continuously Bringing Delight

Basic Information

Environmental issues are an example of issues that require an ethical response. I am often asked why we do not refer to our approach as "sustainability e-commerce," and the answer is that we believe it is important to include both environmental issues and social issues in our scope of consideration and address such issues in a more ethical manner.

Investors are now starting to evaluate companies based on whether or not they are implementing SX and ethical e-commerce. In other words, if a company does not implement such policies, then their corporate value will decrease.



Peter David Pedersen

Peter David Pedersen was born in Denmark in 1967. He first came to Japan from Denmark as a high school student in 1984. Following his graduation from the Institute of Anthropology, University of Copenhagen, in 1995, he returned to Japan and began his career. He co-founded E-Square Inc. in 2000, becoming its president and representative director in 2011. Since 2015, he has served as executive director of NELIS-Next Leaders' Initiative for Sustainability. Since 2019, Mr. Pedersen has been a professor at Shizenkan University. Further, he has been an external director of MARUI GROUP Co., Ltd., since 2021 and of Meiji Holdings Co., Ltd., since 2022. He was appointed as a sustainability advisor of ASKUL Corporation in 2021.

This is why it is extremely important to consider the extent to which we are promoting SX and ethical e-commerce.

I believe that the concept of ethical e-commerce resembles the "doughnut economics" proposed by economist Kate Raworth in 2011.

In doughnut economics, the center hole of the doughnut represents the portion of people that lack access to life's essentials, while the crust of the doughnut depicts the condition of the global environment that is being burdened beyond the acceptable limits by such factors as climate change and air pollution. The space in between the crust and the center hole is an area in which humanity has no social shortages and the environment is appropriately protected. The idea is that humanity should strive to prosper within this area between the crust and the center hole.

I believe that doughnut economics and ethical e-commerce share common ground because it is also important in ethical e-commerce to establish a framework that needs to be protected and then grow therein.

Pedersen: You are referring to what doughnut economics calls the "safe and just space for humanity," and we must consider what actions need to be taken to realize such a space as quickly as possible. Ms. Raworth has been labeled an "alternative economist," but I do not think there is anything "alternative" about what she is saying. Rather, she is stating the obvious. Without finding such a space, humanity as we know it will cease to exist.

Yoshioka: I feel there are many aspects of today's society that deviate from the doughnut. There are also many people who are successful under the current state of capitalism and who have trouble accepting the ideas espoused by doughnut economics. However, this attitude must change if we are to realize a sustainable society.



I believe there are three important elements to consider in order for ASKUL to realize a true transformation. The first element is reforming our awareness and behavior. For this element, I, as the president and CEO, will strive to communicate the ASKUL WAY, our corporate philosophy, and the significance of ethical e-commerce while engaging in dialogue with our employees. By doing so, I hope to foster a sense of inspiration among our employees. I also believe we need to reward and appreciate employees who take action to address challenging issues in a highly visible manner.

The second element is human resource development. Technologies and digitalization are essential parts of SX. To that end, we have been focusing our efforts on reforming our organization through digital transformation (DX), including implementing our own unique training program in 2021 to cultivate human resources who are digitally savvy within the Company.

Striving to Become a Hub for Sustainability

Yoshioka: It is also important to engage our suppliers, such as those we purchase products from, and our customers, to whom we sell our products. I feel that we are in a position where we can become a hub for sustainability, and I hope to leverage this position in a highly effective manner. Pedersen: I think becoming a hub for sustainability is an excellent idea. In attempting to realize ethical e-commerce, I think one of ASKUL's most pressing issues is that its business model focuses on small profits and quick returns. Because of this, there is a strong possibility that shareholders and other investors might be happy with the Company's sustainability

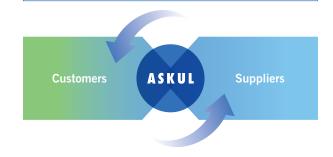
approach but demand to generate more profits. This is an extremely difficult area to navigate.

Yoshioka: The first step is to enhance our overall profit margins by expanding the range of our original products and products we handle based on consideration of the environment: for example, specialized products used by customers working in the medical, manufacturing, and construction industries. Furthermore, it is crucial that we enhance our efficiency by optimizing our overall supply chain through the use of IT and Al.

One of ASKUL's strengths is its unrivaled network of small and medium-sized enterprises (SMEs) in Japan. The delay in the promotion of digitalization at SMEs is believed to be a serious issue. To that end, I believe we can draw on our long-cultivated trust-based relationships with SMEs to provide them with services that help promote the digitalization of their procurement management and administrative operations. If we are able to commercialize such services, that would increase the productivity of SMEs and, in turn, increase profits for ASKUL.

Conceptual Diagram of ASKUL as a Sustainability Hub

Start movements that form connections between all parties as quickly and as efficiently as possible





Pedersen: How many customers does ASKUL currently have? Yoshioka: We have approximately five million customers, many of which are SMEs.

Pedersen: That is guite an impressive number. ASKUL is in a position where it can aggressively pursue sustainability, so I feel that supporting the digitalization of SMEs is an excellent strategy.

The name ASKUL means "delivering tomorrow," correct? With such a name, I would love to see ASKUL transform itself into a company that can "deliver tomorrow." I hope that ASKUL can create a situation where its customers can facilitate sustainability in various processes simply by doing business with ASKUL and, in turn, contribute to the SDGs. Creating such a situation would greatly contribute to ASKUL's sales activities.

My first hope is that ASKUL changes the mindset of its employees, encouraging them to adopt the idea of aggressively pursuing sustainability and making profits while doing so. This is something that I am very much looking forward to as ASKUL pursues its endeavors.

ASKUL Value Center

Kansai

* February 2018

Osaka Demand

Management Center (DMC)

* September 2006

Same-day delivery area Next-day delivery area

SPECIAL FEATURE 2

Optimizing Value Chains through Digital Transformation:

Logistics Technology

ASKUL's Logistics Platform: Enabling Same-Day and Next-Day Deliveries

To enable same-day and next-day deliveries to customers across Japan, the ASKUL Group operates 10 distribution centers in urban areas nationwide. Also, roughly 70% of parcels are delivered through the Company's own distribution management system.

Use of External Warehouses and Digital Network for **Distribution Centers**

Having built a digital network, ASKUL operates a procurement system that prevents shortages of items by sharing inventory data among distribution centers and flexibly stocking up inventories by using external warehouses close to its distribution centers. Furthermore, in order to deliver products in just one box as much as possible, the Company has created a system that automatically changes the distribution centers from which products are shipped out depending on the state of inventories.

Note: Certain ASKUL distribution centers included in this report use the following abbreviations. Demand Management Center: DMC; ASKUL Logi PARK: ALP; ASKUL Tokyo Distribution Center: ASKUL Tokyo DC; ASKUL Value Center: AVC: and Demand Chain Management: DCM

Distribution Centers

- Only B-to-B business
- B-to-B and B-to-C businesses
- Only B-to-C business
- Pre-handling and third-party logistics business

ASKUL Value Center



* April 2017



* August 2007

ASKUL Miyoshi Center



* September 2020



* April 2002

ASKUL Logi PARK



* December 2015

* September 2004

Nagoya Center

ASKUL Logi PARK Yokohama



* May 2016

ASKUL Tokyo Distribution Center (DC)



* November 2022

* Date each center began operations

Optimizing Value Chains through Digital Transformation:

Logistics Technology

Head Products and Long-Tail Products

ASKUL's directly operated distribution centers mainly stock high-turnover head products that are frequently ordered, while long-tail products—such as items for the medical, nursing care, and manufacturing sectors—are delivered directly to customers from suppliers' bases. As it is important to know when products used in day-to-day work will arrive, ASKUL has built a system where customers can place orders with peace of mind, even for products that are delivered directly from suppliers, by displaying delivery dates on its website based on information from the shipping base and delivery destination.

Hybrid Product Strategy



No. of items

Topic

Initiatives to Reduce Delivery Costs, the Largest Cost in E-Commerce

There are limits on the quantity of products that can be stored at distribution centers, and the same products are not stored at all distribution centers. When a single order requires the shipment of products from multiple distribution centers, problems can arise, such as long-distance deliveries of products shipped out from distribution centers further away. The receiver who has to handle the multiple deliveries also has to do more work, all of which increases delivery costs. We are therefore working to solve this problem at the root with technologies that do not depend on the experience of on-site workers. Since December 2021, ASKUL has been conducting joint research with the University of Electro-Communications and TIMEINTERMEDIA, Inc., in an industry-academia collaboration to advance evolutionary computation and develop algorithms therefor in the Al field, with the aim of optimizing inventory allocations in distribution centers. Using voluminous data on shipment histories, inventory levels for each product, shipment capacity, and storage capacity at distribution centers, we aim to optimize inventory assignment and volume at each distribution center by determining the best inventory placement for each product based on evolutionary computing methods. We aim to reduce delivery costs by using the power of technology to eliminate multiple package deliveries for the same order.

Optimizing Inventory Placement through the Use of Al **Curb** increases in delivery costs Split shipments for one order Long-distance deliveries

Message

In Japan, logistics is facing an unprecedented crisis, with a logistics shortage of 36% being forecast by 2030. As the e-commerce market expands due to changes in



Tamami Ito **Executive Officer Logistics Unit**

consumer purchasing behavior, increasing worker shortages in the logistics field mean that traditional operations will be unable to keep up in this expanding market. We must therefore create a new logistics model that solves structural issues in e-commerce.

ASKUL is well versed in business management at each stage of the value chain, from product development and registration to sales, logistics, and delivery. Leveraging this strength, the Company is pushing forward with the digital transformation (DX) of individual processes, including through the promotion of product development that gives consideration to logistics efficiency and the installation of robots to lighten workloads and conserve labor for warehouse work. Going forward, ASKUL intends to realize sustainable logistics by providing new value to customers, in addition to reducing internal costs and workloads while accelerating operations.

Optimizing Value Chains through Digital Transformation:

Logistics Technology

Automation and Big-Picture Digital Transformation in ASKUL's Logistics

ASKUL is digitally transforming its processes, fusing together the power of machines and workers, and designing its logistics operations based on the perspective of overall optimization, from upstream to downstream operations. These efforts are resulting in lighter workloads for employees and logistics without wasteful costs.

Suppliers	ASKUL Distribution Centers De			ery Depots Customers
Shipment, transport, delivery, unloading	Reception, shelving, and storage Combining goods (sorting) / Packaging / Shipment / Primary sorting by direction Transport / Secondary sorting by direction / Delivery			
Berth reservation system*1	Supplier portal EDI*⁴	4 AMR*6	7 Outbound shuttle system* ¹ for group retrieval and retrieval in permutations	Transit plan
	Inspection-less package reception	Digital picking	8 Height adjustment and sealing machine	Delivery vehicle plan
ASN*2/SCM*3	1 Pallet transport AGV*5	5 Picking robots		
	2 Shelf rack transport AGV*5		9 Robotic depalletizers*8	Driver app
Foldable container deliveries		6 Goods to person (GTP) system	10 Sorters and sorting systems	Vehicle sorting app
3 Automated storage Manual labor				

^{*1} Short for "truck berth." A berth reservation system involves loading and unloading packages at spaces set aside in parking lots for trucks.

^{*2} ASN = Advanced shipping notice. ASN is a notification usually used by suppliers to provide detailed shipment information (delivery date, product information, volume, etc.) to distribution centers in advance.

^{*3} SCM = Shipping carton (container) marking. SCM refers to delivery labels with barcodes that are attached to Oricon, foldable containers, as well as to other types of containers. Using SCM, recipients of packages can confirm content details, tracking numbers, and other information without actually opening the package.

^{*4} EDI = Electronic data interchange. EDI involves the electronic handling of forms between companies, such as purchase orders, order sheets, delivery notices, and invoices, via networks.

Optimizing Value Chains through Digital Transformation:

Logistics Technology

Logistics Robotics and Automation



Receipt, shelving, and storage

1 Pallet transport AGV



Pallets full of incoming products are transported to the intake facility of the automated warehouse, increasing work efficiency by reducing the need for workers.

1 center

2 Shelf rack transport AGV



Products on racks of shelves are moved to the picking worker, thereby reducing the distance walked by warehouse workers and increasing their productivity.

2 centers

3 Automated storage



Products can be stored up to the height of the ceiling, maximizing storage density.

7 centers

Picking

4 AMR



The distance walked by picking workers is sharply reduced, increasing their productivity. These arm-type robots use 3D-image recognition to automatically generate a movement plan to identify and pick out 2,000 varieties of products.

5 Picking robots

2 centers

Combining goods (sorting) / packaging

6 GTP system

Picking



This picking (goods-to-person) system transports products to the location of workers.

3 centers

7 Outbound shuttle system for group retrieval and retrieval in permutations



This shuttle system picks up products on multiple routes and moves them to packaging stations based on individual orders.

6 centers

8 Height adjustment and sealing machine



Packaging equipment folds and lids cardboard boxes in order to minimize the sizes of boxes to fit the merchandise.

7 centers

Shipment / primary sorting by direction

9 Robotic depalletizers



These arm-type robots move cases of products from pallets to conveyor belts, helping reduce the workloads of employees.

1 center

1 center

10 Sorters and sorting systems



Sorters are controlled by systems to divide products by their outgoing direction and delivery carrier.

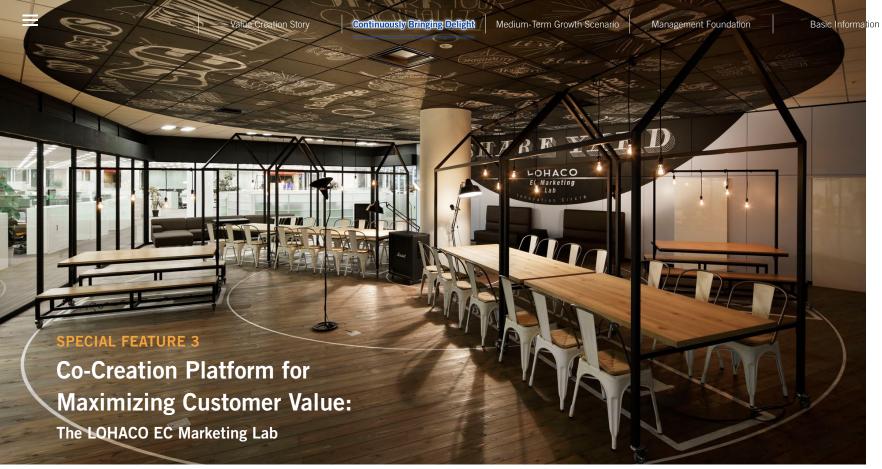
All centers

*5 AGV = Automated guided vehicle

*6 AMR = Autonomous mobile robot. AMR makes use of sensing technologies, such as cameras and sensors, and AI to create maps of the environment in which they move and confirm their own location, allowing them to move while avoiding people and obstacles.

*7 Shuttle system: This is a type of equipment that can conduct deliveries to and from automated warehouses and other locations at high speeds.

*8 Depalletize: Work involving unloading individual packages off a pallet. Devices that conduct this work are referred to as "depalletizers." (opposite of palletize = to stack packages on a pallet)



What is the LOHACO EC Marketing Lab?

The LOHACO EC Marketing Lab (LOHACO ECM Lab) was launched in February 2014 at a research center in ASKUL's head office as an initiative to research and rapidly implement new marketing methods that use big data in the era of e-commerce. With leading Japanese manufacturers and other companies*1 participating in this initiative, we are researching effective and efficient e-commerce marketing methods and developing know-how in view of customer needs. We openly share information and knowledge among the participating companies through case studies and study groups, realizing a co-creation platform for maximizing customer value in ways that go beyond sector and company borders.

*1 As of 2022, the LOHACO ECM Lab's ninth period of operation, 119 companies participated in the lab. which has around 480 researchers

Opening Up of Big Data

Based on the Company's idea that data should be returned to and used by society, ASKUL makes available to participants in the LOHACO ECM Lab various data*2 on e-commerce held by LOHACO, such as data on customers, purchases, products, access logs, inquiries, reviews, and deliveries. Companies participating in the lab are able to view the data of all other participating companies, in addition to their own data, facilitating a deeper understanding of customer purchasing behavior, preferences, and lifestyles through the analysis of big data.

*2 Such data excludes names, dates of birth, and other personal information.

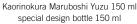


Co-Creation Platform for Maximizing Customer Value: The LOHACO EC Marketing Lab

Creation of Fitting Our Lifestyles Design

Fitting Our Lifestyles Design is an innovation that came out of the LOHACO ECM Lab. With the concept of shifting from private brand (PB) products centered on distribution to consumer brand (CB) products focused on consumers, ASKUL and manufacturers are jointly pursuing an open concept for designs and products that customers will want to place in visible locations, rather than







nepia krafco

putting them away in a cabinet at home, while moving away from package designs that place too much emphasis on displaying product information so that we can encourage consumers to buy them from retail store shelves.

It has been proven that sales of consumer brand products via LOHACO will increase because they are placed in visible locations and therefore used more frequently, while offering compelling and unique value as products that can only be bought at LOHACO. They also help manufacturers solve their own issues and create new opportunities to develop products uniquely suited to e-commerce.

In addition to changing the package designs of existing products, we are expanding initiatives to release a large number of products developed from scratch.

In 2019, ASKUL started to develop environment-friendly products that fit naturally into people's lifestyles, under the slogan "One Step Forward! Fitting Our Lifestyles," in addition to pursuing better designs and emphasizing the theme of sustainability. We will continue to develop products with manufacturers that combine sustainable elements, maintaining our dedication to good designs and easy-to-use specifications while also considering what we can do through our products to enable environment-friendly lifestyles.



LOHACO Exhibition

Fitting Our Lifestyles LOHACO Exhibition

The Fitting Our Lifestyles LOHACO Exhibition is held as an event to showcase consumer brand products created by the LOHACO ECM Lab. This exhibition is a special opportunity for LOHACO to come into contact with customers, and it was held as an in-person event five times from 2015 until 2019, drawing crowds of people with companies aiming to sell their products. Due to the COVID-19 pandemic, however, the exhibition moved online from 2020, and the frequency of the exhibition was increased with the aim of seamlessly introducing new products to customers throughout the year.

Message from Participating Company

We have participated in the Fitting Our Lifestyles LOHACO Exhibition since 2015 with the objective of advancing our e-commerce marketing activities. Kao jointly developed and sells Resesh, an ASKUL-exclusive product, based on the Fitting Our Lifestyles Design.



Kotaro Nuriya **Kao Corporation Senior Executive Officer**

The package was designed to only fit in with the lifestyles of consumers, and it does not convey the functionality or name of the product at a glance. At the time, the design was adventurous in that it broke most of our internal design rules, but we decided that the functionality of the product can be adequately described on the e-commerce web page.

As a manufacturer, we tend to create products based on our own principles. However, in working with ASKUL, we became aware that the Fitting Our Lifestyles Design has some overlap with good manufacturing practices, resulting in a successful experience that allowed us to consider aspects from the

customer's perspective.



In addition to creating marketplaces through data analysis, we believe these efforts will lead to more efficient ideas for marketing activities based on customer-driven analysis in product development.

- Resesh Disinfectant EX Natural Stone Design Bottle 2 Biore u Foaming Hand Soap, Porcelain Design,
- Mild Citrus Scent