



**PACT**  
No Plastics  
in Nature  
A WWF INITIATIVE FOR  
A CIRCULAR ECONOMY AND  
NO PLASTICS IN NATURE BY 2030

# REUSABLE E-COMMERCE PACKAGING PILOT

## PILOT REPORT

Research Partner



DHL CONSULTING

Lead Partner



Logistics Partner



Packaging Partner



BETTER PACKAGING CO.





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## ABOUT THE PILOT

Spearheaded by WWF-Singapore's Plastic ACTion (WWF-PACT), in partnership with UOB, SingPost, and Better Packaging Co., the pilot initiative aims to promote the concept of reusable e-commerce packaging in Singapore to shape a circular economy.

The first of its kind in Asia Pacific, the pilot will see retailers such as Cloversoft, Davines, Good Dog People™, Herbal Pharm, iRun, Outfyt, Refash, Retykle, Thryft, Unpackt, Vintage Sports, and WWF-Singapore merchandising coming together to provide their customers with the option to opt in for a reusable e-commerce packaging as an alternative to single-use disposable packaging. It will showcase how Singapore's developed postal network can be utilised to support a robust reverse logistics supply chain needed in a circular network.

# ABOUT

## ABOUT WWF-SINGAPORE

World Wide Fund for Nature (WWF) is one of the world's largest and most respected independent conservation organisations. WWF's mission is to stop the degradation of the Earth's natural environment and to build a future in which humans live in harmony with nature.

As one of WWF's international hubs, WWF-Singapore supports a global network spanning over 100 countries. WWF-Singapore works closely with local stakeholders towards a greener and more sustainable Singapore and the region around us. We work to address key conservation areas, such as climate change, sustainable finance, deforestation, illegal wildlife trade, marine conservation, and sustainable production and consumption, through collaboration, education and outreach efforts involving the community, businesses, and governments. For more information, please visit [wwf.sg](http://wwf.sg).

## ABOUT WWF-SINGAPORE's Plastic ACTION

Started by WWF-Singapore and based on WWF's No Plastic in Nature Initiative, WWF-Singapore's Plastic ACTION (WWF-PACT) is a business initiative that aims to reduce waste and move towards a circular economy. The programme empowers companies to adapt their business models and processes to be more resource-efficient. By providing businesses with guidance and best practices, WWF-PACT enables them to make science-based decisions for responsible production and consumption. This will lower their environmental footprint, and address the growing consumer demand for sustainability. For more information, please visit [plastic-action.asia](http://plastic-action.asia).

## ABOUT DHL CONSULTING

DHL Consulting (DHLC) is an independent management consultancy dedicated to creating value for Deutsche Post DHL (DPDHL) Group, its customers, and external companies that seek to improve their supply chain performance. DHLC is an objective partner due to its independent position within DPDHL Group. The advice is neutral and based on unique industry insight that helps identify the best and most viable solution for customers. The management consulting branch supports the top management of DPDHL Group in shaping the future of their world businesses – while the supply chain consulting solves logistics challenges for external customers in close collaboration with DHL business units.

In this pilot initiative, DHLC serves as a project manager, and produced this pilot report at its conclusion, incorporating analysis, findings, and recommendations. DHLC is also the research partner in the feasibility study on “Delivering on Circularity”. For more information, please visit [dhl-consulting.com](http://dhl-consulting.com).

## EXECUTIVE SUMMARY

Twelve retailers participated in the initiative, which allowed customers to choose reusable packaging for their online orders. Of the 15,000 orders processed during the pilot, one third of customers opted for the reusable option. The study found that consumer understanding played a significant role in the uptake of the reusable packaging, highlighting the importance of education in promoting its use.

For reusable e-commerce packaging to be environmentally sustainable, it must meet a minimum number of uses. This can range from four to six uses, depending on its design and material. The pilot revealed that clear instructions, convenience, and incentives for returning the packaging were key to achieving a high return rate of the packaging.

Logistically, the implementation of reusable packaging was straightforward for the participating retailers. Improvements in packaging design, such as tamper-proofing and label adhesion, could further address any concerns by last-mile logistics providers.

To scale up the use of reusable e-commerce packaging, a range of stakeholders will need to collaborate and play a role. The government can encourage entrepreneurship in this area through appropriate legislation or regulations, while logistics companies can develop the infrastructure to optimise packaging return logistics and handle the collection at scale.

At present, some retailers already see cost savings with the use of reusable packaging. Based on a consumer survey, consumers are willing to pay a small premium for parcels mailed in these packaging. This can be an option to further subsidise costs and make the concept more economically viable for more retailers.

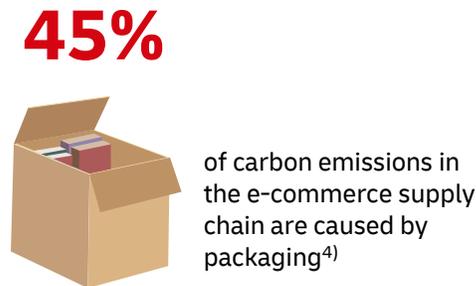
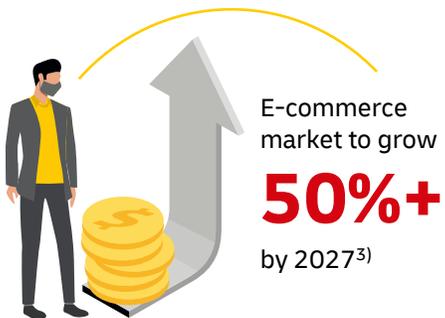
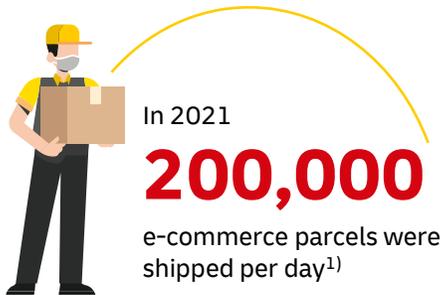
This report provides valuable insights into the successful implementation of reusable packaging, serving as a useful resource for retailers and organisations looking to create a more sustainable e-commerce ecosystem in Singapore.



***The pilot programme for reusable e-commerce packaging in Singapore received promising results and support from consumers and retailers. There is great potential for this concept to materialise and scale in Singapore.***

# INTRODUCTION

The growth of e-commerce in Singapore and its accompanying packaging waste problem motivated a feasibility study on circularity in 2021. Based on the findings, a reusable e-commerce packaging pilot was launched in 2022.



## Scale of the issue

Singapore's e-commerce market has been growing fast and is projected to grow by more than 50% by 2027. Three in four internet users over the age of 16 in Singapore have shopped online and have witnessed the packaging waste that e-commerce generates. In a study conducted by MIT, it was found that packaging is accountable for 45% of carbon emissions in the e-commerce supply chain. The second biggest contributor is returns management at 25%.

## 2021 – Feasibility study on circularity

In 2021, the team embarked on a **feasibility study for reusable e-commerce packaging in Singapore**. The objective of the feasibility study was to assess whether reusable packaging can be implemented in Singapore. One of the advantages of Singapore is its well-developed logistics network. Given Singapore's small size, it also has the advantage of a short return leg for reusable packaging. A key challenge is to address customers' preference for convenience. One of the ideas to address this was to use the network of accessible posting boxes to return packaging. The complete findings of the feasibility study were subsequently published in the **“Delivering on Circularity”** report.

## 2022 – Pilot on reusable e-commerce packaging

This pilot was designed to test some of the key findings of the feasibility study and to use a fact-based and data-driven approach to understand the challenges and ideal conditions for setting up a reusable packaging system in Singapore. In this pilot, a range of retailers selling products in different categories and operating at differing scale were onboarded to test the reusable packaging concept in a robust way. Singapore's national postal network was also utilised to manage packaging returns. This report will outline the key findings of this pilot initiative.

1) <https://internationalfinance.com/cainiao-alibabas-logistic-arm-expand-last-mile-network-singapore/>; 2) <https://www.towardszerowaste.gov.sg/waste-streams/packaging-waste/>;

3) <https://www.straitstimes.com/business/e-commerce-sales-in-spore-expected-to-reach-196b-by-2027-despite-slower-growth-this-year>; 4) MIT Retail Carbon Footprint Report

# PILOT OVERVIEW

## Overview

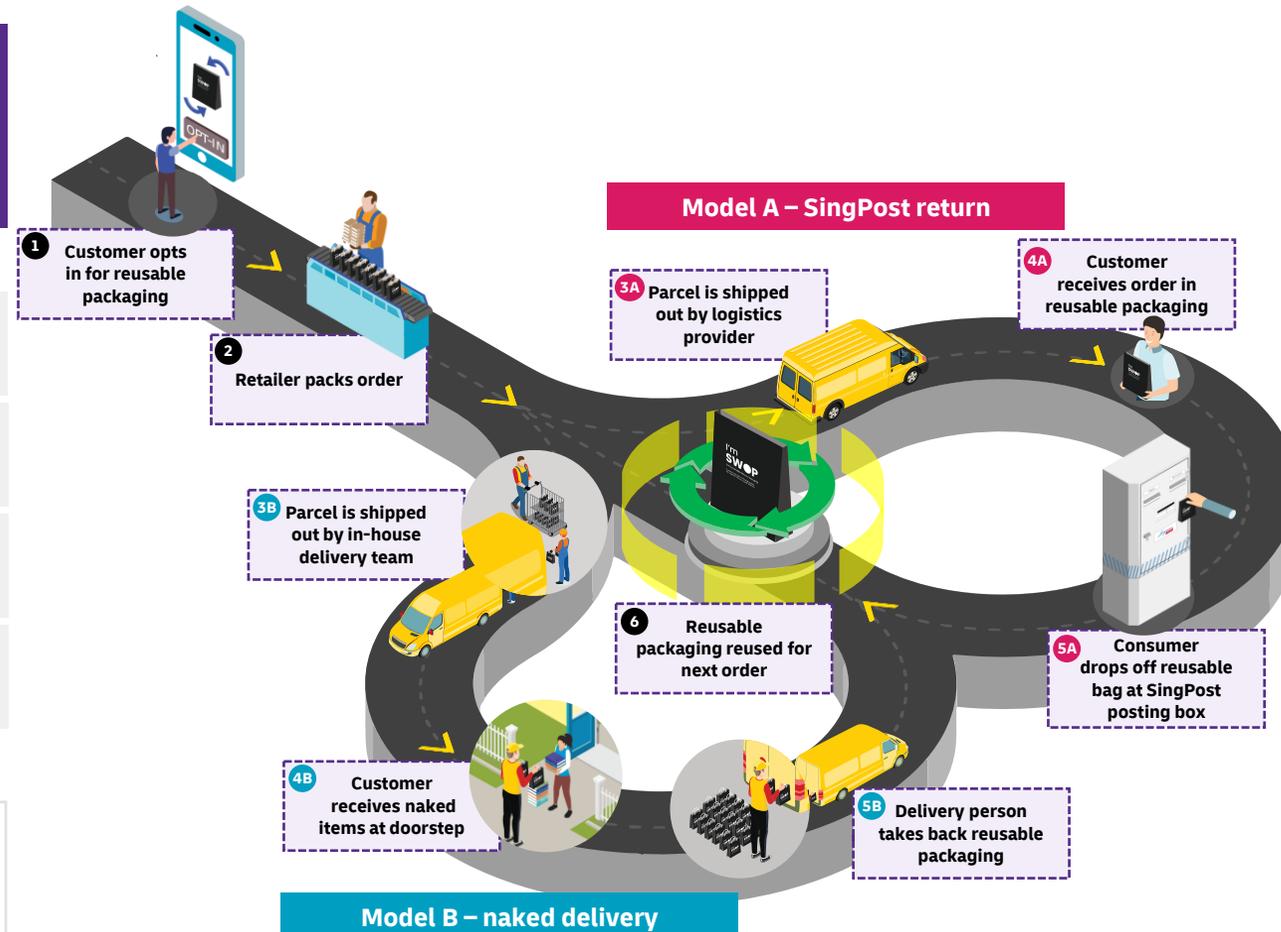
 <b>6</b> months	 <b>2</b> models	 <b>12</b> retailers
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## Objectives

- 1 Understand **consumer sentiments and behaviour** via exploration of **KPI outcomes** – opt-in and return rates
- 2 Understand the **benefits to retailers** and the **operational feasibility** of implementing reusable packaging
- 3 Use the **key learnings** from the pilot initiative to find out **how we can scale** the reusable packaging concept in Singapore
- 4 Explore what we have **achieved** from the pilot initiative and assess **where we stand** in our vision to create a **circular economy**

## Methodology

<b>Consumer survey</b>  487 consumers	<b>Retailer interview</b>  24 hours	<b>Consumer interview</b>  10 consumers
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## Model A retailers

- |   |   |                           |
|---|---|---------------------------|
|    |    | Sustainable personal care |
|    |    | Sustainable hair care     |
|    |    | Health and wellness       |
|    |    | Sports shoes              |
|    |    | Sustainable activewear    |
|    |    | Secondhand clothing       |
|    |    | Secondhand kid's clothing |
|    |    | Secondhand books          |
|  |  | Bulk food                 |
|  |  | Sandals                   |
|  |  | Merchandise               |

## Model B retailer

- |   |   |           |
|---|---|-----------|
|  |  | Pet store |
|---|---|-----------|

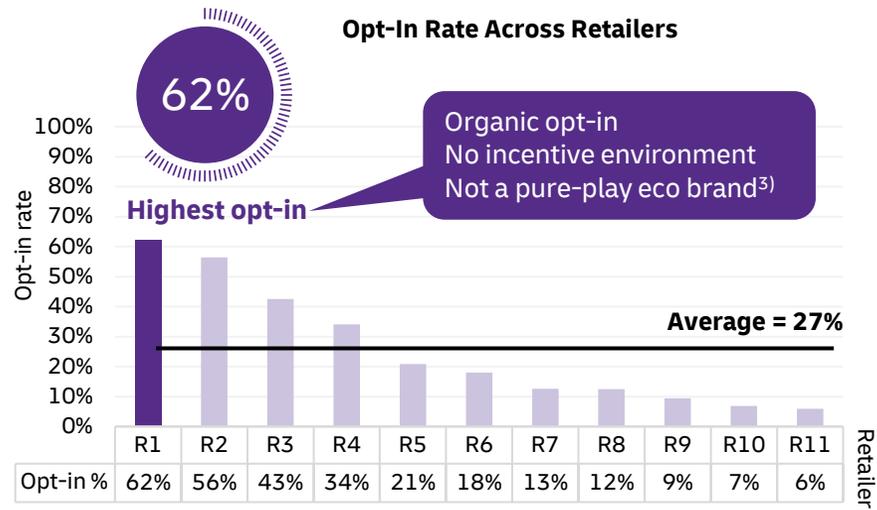


# SECTION 1: CONSUMER BEHAVIOUR AND SENTIMENT

Understand consumer sentiments and behaviour via exploration of KPI outcomes – opt-in and return rates.

# THE REUSABLE E-COMMERCE PACKAGING GENERATED CONSUMER INTEREST AND MANY OPTED IN FOR THE OPTION

During the pilot, approximately 15,000 customer orders were processed<sup>1)</sup>, and 1 in 3 customers opted in for the reusable packaging option. The opt-in rate varied greatly among the 11<sup>2)</sup> retailers, with the highest rate being 62%. The pilot demonstrated significant potential for consumer interest and support in the reusable packaging concept.



### Reusable packaging is opted for 1 in 3 times

- Through the pilot, retailers processed 15,000 orders; reusable packaging was opted for 1 in 3 times
- Across retailers in this pilot, the opt-in rate was moderate, at 27% on average for each retailer

### Opt-in rate differs greatly across retailers

- The range of opt-in rate across retailers is large – between 6% and 62%
- As the reusable packaging concept is new to consumers, clarity of communication by each retailer to their customers played a big role in influencing opt-in rates

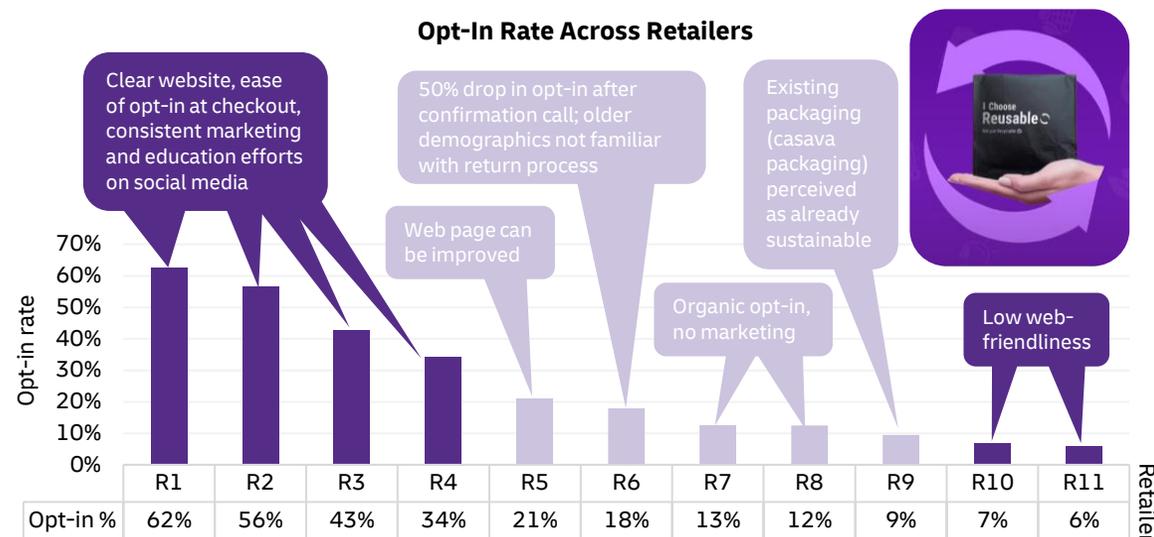


1) About 15,000 relevant orders are processed in the duration of the pilot initiative – a relevant order refers to an order that can fit into and be fulfilled in a reusable packaging; 2) One retailer was excluded from the analysis given the late kick-off due to unforeseen circumstances – only 1 month of data is available; 3) A pure-play eco brand refers to a retailer whose main business focus is sustainability

# RANGE OF OPT-IN RATES A DIRECT RESULT OF CONSUMERS' DIFFERING LEVELS OF UNDERSTANDING OF THIS NEW PACKAGING CONCEPT; CONSUMER EDUCATION IS KEY

Customers who did not opt in for reusable packaging were surveyed<sup>1)</sup>. Over half of them did not opt for reusable packaging because they were unaware of the concept and option. The pilot's success relied on each retailer promoting the concept individually. With better education on the reusable packaging and as it becomes more widespread, the opt-in rate is expected to increase.

The **clarity and user-friendliness of e-commerce sites and social media sharing** were found to be the key factors influencing the difference in opt-in rates across retailers, as supported by the analysis of retailer performance on opt-in rates and the customer survey.



1) 30 out of 487 customers surveyed

## Web-friendliness

“ Overlooked clicking the option - may do so for future purchases ”

“ I didn't see the option ”

## Education

“ How secure is the bag to withstand shipping? ”

“ Hygiene ”

## Overcoming resistance

“ No time to return ”

“ Inconvenience and troublesome ”



58%

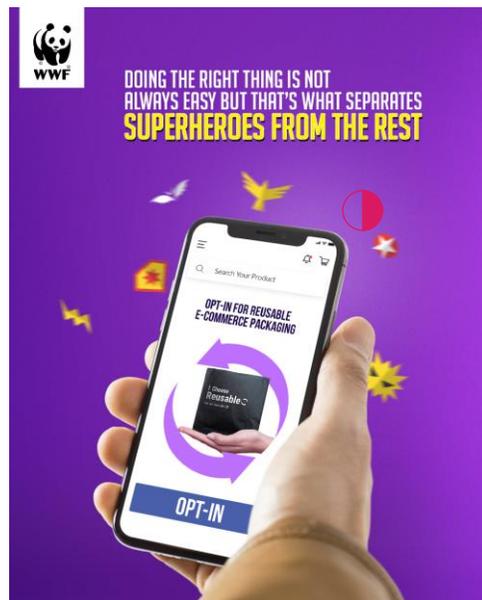
Not fully aware of the concept and option

27%

Thought the return process was a hassle

# MOST CONSUMERS ARE CONCERNED ABOUT SUSTAINABILITY – THE CONCEPT NEED NOT RELY ON STRONG SUPPORTERS OF ECO-FRIENDLY BRANDS

Most consumers who opted in for the reusable packaging are willing to take up the option, as it is a sustainable choice. This willingness to adopt the option extends beyond just those who are strong supporters of eco-friendly brands. The right incentive can motivate more people to opt in for reusable packaging.



## Supporters of eco brands on opt-in

**There is no conclusive evidence that consumers who buy from eco brands are more likely to opt for reusable packaging**

- Retailer 1 achieved the highest opt-in rate at 62% with some sustainability messaging in its branding, while Retailer 4 also garnered an above-average opt-in rate of 34% despite targeting a more price-sensitive customer base on Shopee
- In a survey of over 100 pilot customers who opted in for the reusable packaging, 81% of the respondents agreed that the concern for sustainability had influenced their opt-in decision, and this trend was consistent among the various retailers

## Incentives on opt-in

**Incentives may not be a significant factor in consumers' decision to opt in for reusable packaging, but the right incentive can motivate some consumers to switch – this can help retailers improve their overall opt-in rate**

- Despite the introduction of incentives by Retailers 7, 9, and 11, such as 5% or \$5 off on the next order, their opt-in rate achieved remained low – below 13%
- However, some customers are influenced by incentives: in a survey with over 100 pilot customers who opted in for the reusable packaging, 37% of the respondents agreed that the incentive had influenced their opt-in decision
- In a trial over two time periods – one with a chance to enter a lucky draw and one without an incentive, Retailer 4 saw a 32% improvement in the opt-in rate, from 31% to 41%, when the incentive was introduced

Retailers	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11
Opt-in %	62%	56%	43%	34%	21%	18%	13%	12%	9%	7%	6%
Eco brand <sup>1)</sup>	III	II	I	I	I	III	IV	IV	II	IV	I
Incentive <sup>2)</sup>	No	Yes	No	No	No	No	Yes	No	Yes	No	Yes

1) Retailers are ranked relatively, with I being a pure-play eco brand where the business model itself is circular or has sustainability as the primary focus, and IV being a typical retailer with no strong sustainability focus; 2) Incentive was given out to customers only after they returned the reusable packaging

# RETURN RATE FOR THE PILOT OF REUSABLE E-COMMERCE PACKAGING IS ENCOURAGING DESPITE BEING A FRESH CONCEPT

Of the consumers who opted in for the reusable packaging, 1 in 2 returned the packaging. Given the pilot set up and novelty of the concept, this return rate is promising. From here, more concerted efforts are needed to boost return rates to a 75% range, to foster a more sustainable e-commerce scene.

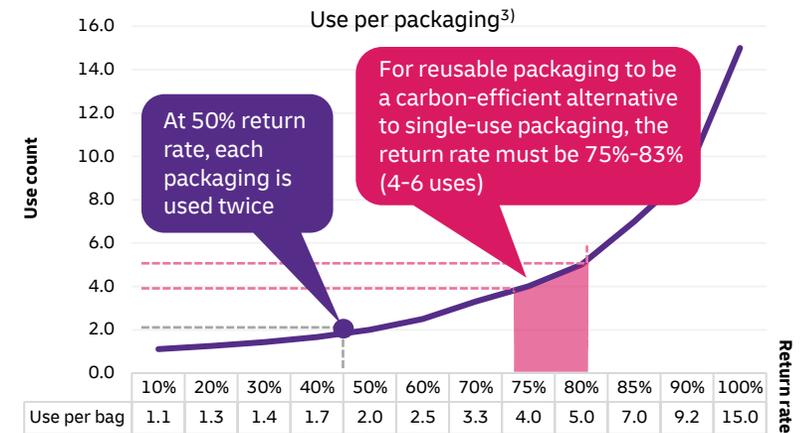
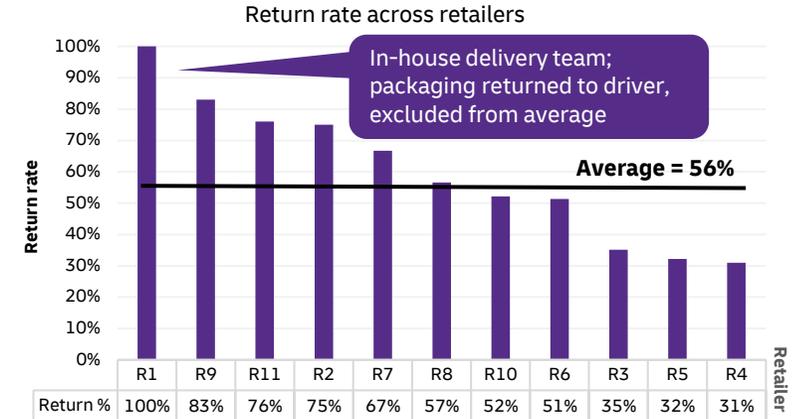


## 1 in 2 consumers returned the reusable packaging

- During the pilot, of the orders processed in reusable packaging, the return rate for these orders was 40%
- Across retailers<sup>1)</sup>, the return rate was more promising, with 56% returns on average per retailer
- Note that these numbers exclude Retailer 1 (model B), who had a 100% return rate
- Consumer education and reminders could help increase the return rate

## Efforts are needed to boost return rates to a range of 75-83%

- According to the findings of the feasibility study<sup>2)</sup>, for reusable packaging to effectively reduce resources needed for production and transportation of single-use packaging, it must be used at least 4 to 6 times
- This equates to a return rate target of 75-83%



1) The last month of return data from all retailers was excluded in the calculation as it does not sufficiently capture all returns – some consumers may take more than a month to return the reusable packaging; 2) Feasibility study commission in phase 1 of the project, prior to pilot, titled “Delivering on Circularity – Feasibility Study for Reusable E-commerce Packaging in Singapore”; 3) Based on feasibility study



# CONVENIENCE, REMINDERS, AND INCENTIVES ARE KEY TO BOOSTING RETURNS

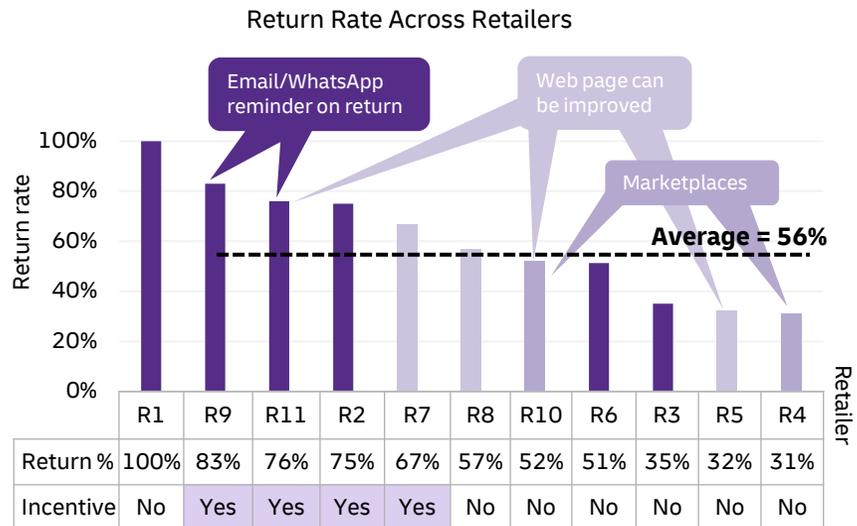
Like opt-in rates, return rates will see a boost with clear instructions and consumer education; specifically, return reminders are effective. While incentives play a part in boosting the return rate, convenience must be addressed fully to ensure timely return.



## The power of human touch, reminders, and incentives

### Efforts with return reminders boosted return rates and reduced time taken to return by 30%

- Retailers 9 and 11 who initiated email and WhatsApp reminders achieved higher return rates above 75%
- Retailers 4 and 10 on marketplaces recorded lower return rates; limited channel to promote and educate customers, as well as a lack of effective<sup>1)</sup> avenues to remind customers of return were cited as key factors
- Inserting a reminder slip into the reusable packaging with instructions on how to return improved the average days taken for packaging returns from 18 to 13 days
- Retailers who offered incentives also recorded the highest return rates



## Incentive or convenience?

### Incentives can increase return rates, but the ease of the return process must be prioritized

- During a trial by Retailer 9, consumers were given the choice between receiving an incentive<sup>2)</sup> for return in-store at retailer's outlet or returning it via SingPost with no incentive: they preferred the convenience of dropping the packaging at the widely available SingPost posting boxes in Singapore
- Age demographics can also affect preference: in a focus group with 5 high school students, convenience was favoured over incentive, while in an interview with 5 shoppers aged 65 and older, incentives were preferred



## Does default opt-in impact return rates?

### With the right conditions to encourage returns, automatic opt-in may be considered to help scale the concept

- In a test scenario carried out by Retailer 11, orders were converted to default opt-in (consumers received their orders in reusable packaging): the return rate fell from 76% to 38%<sup>3)</sup> while, the opt-in rate improved from 6% to 100%
- When strong consumer education and awareness is made a prerequisite to default opt-in, it can help maintain a healthy return rate while significantly boosting the opt-in rate

1) Direct chat function on marketplaces are available, but shoppers often do not open to read the messages; 2) \$5 off next purchase; 3) Automatic opt-in tested on last month of pilot; some consumers may have taken more time to return

# CONSUMERS APPRECIATED THE REUSABLE PACKAGING, ARE SUPPORTIVE, AND LOOK FORWARD TO BEING OFFERED THE OPTION AGAIN

(Non-exhaustive list of Shopee reviews)

User Name: [redacted]

**Organic Chia Seeds 20...**  
Variation:200g|500g

★★★★★

Taste:Good Quality:Good Occasion:Good Second time buying and still great service. **Just wondering why is there no option for the reusable packaging this time.**



15/10/2022 15:42

User Name: [redacted]

**Almond Meal Blanche...**  
Variation:I am fine with any|Opt in use Swop Bag

★★★★★

Quality:good Used this to bake a flourless orange cake and it turned out well. **I appreciate the reusable SWOP bag option too.**



08/08/2022 21:37

User Name: [redacted]

**Organic Flaxseeds 200g**  
Variation:Opt in use Swop Bag|I am fine with any

★★★★★

First time purchase. Items are cheaper compared to retail shops. **Love the recyclable packaging. Will continue to support the good initiatives.**



07/09/2022 11:01

User Name: [redacted]

**Shiitake Mushroom Ch...**  
Variation:I am fine with any|Opt in use Swop Bag

★★★★★

healthy and delicious snack! mushrooms were crunchy but not hard. quite addictive. **opted for the SWOP bag initiative which is a cool environmentally friendly way of packaging**

[Collapse](#)



18/10/2022 00:09

User Name: [redacted]

**Almond Meal Blanche...**  
Variation:I am fine with any|Opt in use Swop Bag

★★★★★

Received in good condition. Very well packed. **And able to do our part in reducing waste.**



27/07/2022 16:49

User Name: [redacted]

**Pure Sodium Percarbo...**  
Variation:Opt in use Swop Bag,200g|Opt in use Swop Bag,400g|Opt in use Swop Bag,1kg|I am fine with any,200g|I am fine with any,400g|I am fine with any,1kg

★★★★★

Performance:good Quality:good Suitability:good Item is **well packed with a reusable packaging. Love the initiative from the seller.**

21/09/2022 12:24

User Name: [redacted]

**Sodium Carbonate | So...**  
Variation:500g,I am fine with any|500g,Opt in use Swop Bag|250g,I am fine with any|250g,Opt in use Swop Bag|1kg,I am fine with any|1kg,Opt in use Swop Bag

★★★★★

Very nice buy! The item is delivered fast and in great condition. The bag is resealable and all info is presented! This seller also has an option to choose a reusable delivery pack - **which is a great thing to reuse plastic bags and containers!**

[Collapse](#)



06/10/2022 16:42

User Name: [redacted]

**Organic Culinary Matc...**  
Variation:I am fine with any|Opt in use Swop Bag

★★★★★

Taste:Good Suitability:Awesome packaging Very sincere company. Items are well-packed, foods are fresh and **I like that they respect the earth and use the environmentally friendly packaging. First time buyer who will continue supporting.**

[Collapse](#)

29/09/2022 20:42

User Name: [redacted]

**Pure Sodium Percarbo...**  
Variation:Opt in use Swop Bag,200g|Opt in use Swop Bag,400g|Opt in use Swop Bag,1kg|I am fine with any,200g|I am fine with any,400g|I am fine with any,1kg

★★★★★

Performance:good Quality:good Suitability:ok **Thumb up for the SWOP bag. A good initiative to use recycle bag to reduce waste.**



28/08/2022 00:56

User Name: [redacted]

**Vegan Dark Chocolate ...**  
Variation:Opt in use SWOP bag|I am fine with any

★★★★★

healthy and delicious snack! not too sweet as well. **opted for the SWOP bag initiative which is a cool environmentally friendly way of packaging**



18/10/2022 00:09



“

*At Unpackt, we offer packaging-free groceries and products via our physical and web stores – the latter of which made possible as we have an in-house delivery team who can take back used containers for the next order. Through the pilot programme, we are happy that we can now offer a more sustainable packaging option also for our marketplace customers. As this returnable and reusable packaging concept is rare or even non-existent in marketplaces today, our customers are surprised and delighted when offered this option. We are very encouraged to see that online shoppers do care about sustainability and are willing to contribute if given a choice. Furthermore, we also observed new and return orders along with this packaging offering.*

”

- Jeff Lam  
Founder, Unpackt

# OPT-IN AND RETURN RATES AT A GLANCE

## CUSTOMER OPT-IN RATE



On average,  
**1 in 3**  
opted in for  
reusable  
packaging



User-friendly  
website achieved  
opt-in rate as  
high as  
**62%**

### KEY TAKEAWAY

- 1 Most consumers are concerned about sustainability** - not limited to environmentally conscious individuals



**81%** of survey respondents agreed that sustainability concerns influenced their opt-in decision

- 2 As the returnable packaging concept is novel**, marketing and consumer education are required to boost opt-in

- 3 Incentives can influence** some consumers to opt-in



One retailer saw a **32%** improvement in the opt-in rate when a lucky draw was introduced

## CUSTOMER RETURN RATE



On average,  
**1 in 2**  
returned the  
reusable  
packaging



With return  
reminders, one  
retailer saw return  
rate as high as  
**83%**

- 1 Most consumers have the intention** to return the reusable packaging



**90%** of consumers who returned the reusable packaging took a month; those who did not return needed more time

- 2 Reminders** are essential to increase return rates and maintain the circulation of reusable packaging in the network



Packaging with return reminders and instructions shortened the average time taken for packaging return by **5** days

- 3 Convenience is a key prerequisite** for timely return of reusable packaging



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## SECTION 2: OPERATIONAL FEASIBILITY

Understand the benefits to retailers and operational feasibility of implementing reusable packaging.

# THE IMPACT GOES BEYOND REDUCING SINGLE-USE PACKAGING

Beyond achieving packaging savings, the reusable packaging pilot seeks to change consumers' view on e-commerce waste and demonstrate the impact of simple choices on the environment.



## Reducing packaging waste

**As an alternative packaging solution**, the reusable packaging served as a 1:1 replacement for paper boxes and poly mailers. Based on the return rates and longevity of reusable packaging, each SWOP<sup>1)</sup> packaging, for instance, can save up to 15 single-use packagings if fully utilised.



## Increasing consumer awareness

The pilot initiative served as an **educational platform for educating consumers**. Retailers took this opportunity to raise awareness about e-commerce waste and educate consumers about the concept of reusable and returnable packaging and how they can participate. Good Dog People™ held a live Instagram session with their Pet Wellness Advisor to demonstrate how consumers can make an impact. Jeff Lam, the founder of bulk food store Unpackt, has been actively educating his customers – both online and offline – due to his concern that the rapid growth of e-commerce and large marketplaces may have made consumers less sensitive to the significant waste generated by single-use packaging.



## Changing consumer behaviour

**Consumers now have the option to choose an environmentally-friendlier packaging solution.** Thryft, which already offers sustainable packaging options such as paper and jute string, 100% recycled plastic mailers, and upcycled boxes, has expand its offerings with this pilot initiative. Eddie Lim, the founder, believes that a returnable packaging system would be the most effective solution if it can be scaled up with a high reusable packaging return rate.

1) SWOP (Sustainable Way of Posting) – the brand of reusable packaging sponsored by Better Packaging Co.

## Ground-up and Corporate Involvements



*Before the pilot, we donated a monthly conservation fee to a project managed by Pachama, Inc. in Colombia. With the reusable packaging pilot, the impact now goes beyond monetary terms as our customers are now part of our bigger vision to reduce e-commerce waste in Singapore. It's tangible, meaningful and closer to home.*

– Terry Peh

Founder, Good Dog People™



# RETAILERS ALSO HAVE MUCH TO GAIN FROM THE ADOPTION

## Brand equity



**Adoption of reusable packaging can help retailers demonstrate their commitment to sustainability.** For **eco-conscious brands** that are already seeking sustainable packaging options, the option of reusable packaging is a logical choice to reduce their carbon footprint and reinforce their sustainability mission. Brands such as Refash and Outfyt, which sell secondhand and sustainable clothing, can show customers that they are taking practical steps to promote sustainable fashion. Cloversoft, which sells safe and eco-friendly daily-use products, sees the same benefit and aims to demonstrate their commitment to the environment to customers.



**Similarly, retailers who view sustainability as a key aspect of their business model** can stand to benefit from an improved brand image. Herbal Pharm, which has been offering nutraceutical and natural consumer goods for nearly 20 years now, believes that by offering reusable packaging, consumers will see their commitment to sustainability, improving their brand recognition. Good Dog People™, an online pet store, plans to offer reusable packaging going forward and believes that by continuing to find and adopt environmentally-friendly business practice, they can attract more customers who share their values of putting pets, people, and the environment first.



**Retailer community subscribing to reusable packaging may receive greater consumer interest.** The pilot initiative has already garnered close to 1.3 million impressions<sup>1)</sup> on WWF's social media sites, and retailers such as Cloversoft have reported an increase in sales from both existing and returning customers in conjunction with their Making It Yours Campaign and Plastic Free Month. As the adoption of reusable packaging grows, and more prominence is given to participating retailers, it could be a win-win situation for both consumers and retailers. Consumers can choose to spend more on sustainable brands, and retailers can improve their brand equity.

1) Consolidated by WWF-Singapore – 600,955 from Facebook, and 693,501 from Instagram

## Understanding consumers



**Retailers can gain greater awareness about their customers** in terms of eco-consciousness and receptiveness, through customer opt-in and return rates. With that, more relevant communications, for instance, can be targeted to better suit consumer interest in products that may better appeal to them.

## Cost savings



**There may be cost savings potential for retailers if the reusable packaging is adopted at scale.** Good Dog People™, which uses a naked delivery model (model B), has already started to see cost savings via the use of reusable packaging over single-use packaging and paper boxes. Similarly, Retykle, a retailer of pre-loved baby clothes, and Davines, an eco haircare brand, also saw the opportunity for cost savings after evaluating the high cost of recycled paper boxes that they use.

## Operational efficiency



**It may be operationally more efficient to pack orders into a reusable packaging.** The design of the packaging can be tailored to meet local retailers' needs, and a collapsible and VELCRO® packaging option has the potential to save packing time compared to paper boxes, which need to be built up and secured with tape. Retailers such as Thryft saw a 200% reduction in packing time with reusable packaging.

“

*With the majority of consumers in Singapore caring about sustainability and wanting to make their purchasing decisions based on the impact on the environment, the reusable packaging initiative is a great way for businesses to demonstrate their brand values and establish meaningful connections and loyalty with them.*

– Carolin Barr  
Founder, susGain

”

# THE REUSABLE E-COMMERCE PACKAGING CONCEPT IS OPERATIONALLY FEASIBLE

The ease of implementing the reusable packaging is high. Retailers found it simple and straightforward to set up the process to support this packaging alternative.

“

*With our operations colleagues, they were initially hesitant about the implementation due to the potential difficulties and limitations from the operations perspective, but they were eager to help. They quickly got used to the process, and when the orders started coming in, they were excited and felt encouraged. We feel that it is a good cause to support!*

– Chuen Kah Hui

Senior Marketing & Business Development Executive,  
Cloversoft

”



## IT implementation

**Minimal IT changes required.** From the IT perspective, e-commerce sites had to be updated with the opt-in function, along with a link to the FAQ page detailing instructions such as the packaging return process. Most retailers on propriety e-commerce platforms such as Shopify could swiftly implement the change.



## Change management

**Once employees are convinced of the benefits of the reusable packaging, operational adoption can be done in a swift, fast, and less resistant manner.** Once a customer opts in for the reusable packaging, the reusable packaging may show up as an inventoried product (SKU) easily identified by the warehousing team for pick and pack operations. Teams were briefed on the new concept, along with clear instructions such as the inclusion of return stickers and return instructions. Initial issues associated with efficiency were quickly resolved with practice.



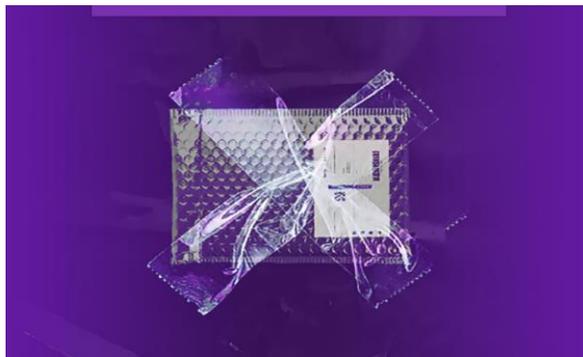
## Efficiency management

**Efficiency was improved or not impacted for 90% of the retailers.** With a simple “drop and VELCRO®” sealing format, the reusable packaging had proved to be an efficient packaging alternative for most retailers traditionally using poly mailers or paper boxes. Thryft, a secondhand book retailer, found a 200% improvement in reducing packing time with the adoption of the reusable packaging over its traditional twine and paper packing option.



# IMPROVED PACKAGING DESIGN CAN ADDRESS THE CONCERNS OF LOGISTICS PROVIDERS

Most retailers had found third-party logistics (3PLs) receptive to implementing the reusable packaging, with good feedback that the reusable packaging stands well during pick and pack operations and fits optimally into delivery vans. Some concerns of 3PLs can be addressed with the redesign of the reusable packaging.



## Possible damage and claims

**Possible damage of products during delivery had been a concern.** Some retailers were requested by their 3PL to have additional bubble wrapping for protection in case of breakage. However, in a trial conducted between a pilot retailer and a small delivery operation, bottled products, for instance, were shipped safely without packaging fillers in the reusable packaging. The process can be trialled with larger last-mile delivery companies on a different sorting process.



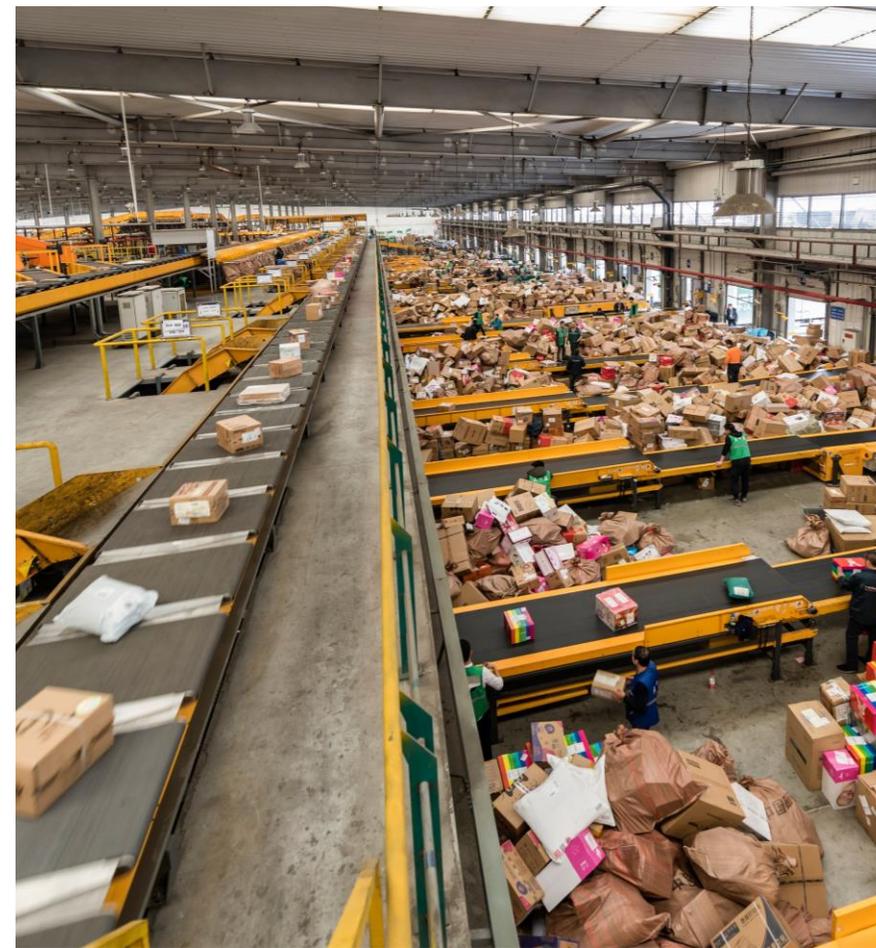
## Label adhesiveness

**The compatibility of shipping labels and reusable packaging was a common topic raised.** Most retailers faced difficulty in removing adhesive shipping labels from reusable packaging, while other retailers faced issues where their labels did not stick properly to the reusable packaging, which can pose as a problem for 3PLs from the parcel identification perspective.



## Parcel size and delivery pricing

**In the pilot, retailers did not face a pricing review from their logistics partners.** As the concept scales, the suitability of packaging sizes must be optimised, as the final parcel size can influence delivery pricing. Currently, small orders fulfilled in the reusable bag are also not packed compactly.





**PACT**  
No Plastics  
in Nature  
A WWF INITIATIVE FOR  
A CIRCULAR ECONOMY AND  
NO PLASTICS IN NATURE BY 2030



## SECTION 3: KEY LEARNINGS

With the key learnings from the pilot initiative, find out how we can scale the reusable packaging concept in Singapore.

# KEY CONSIDERATIONS WHEN SCALING THE CONCEPT

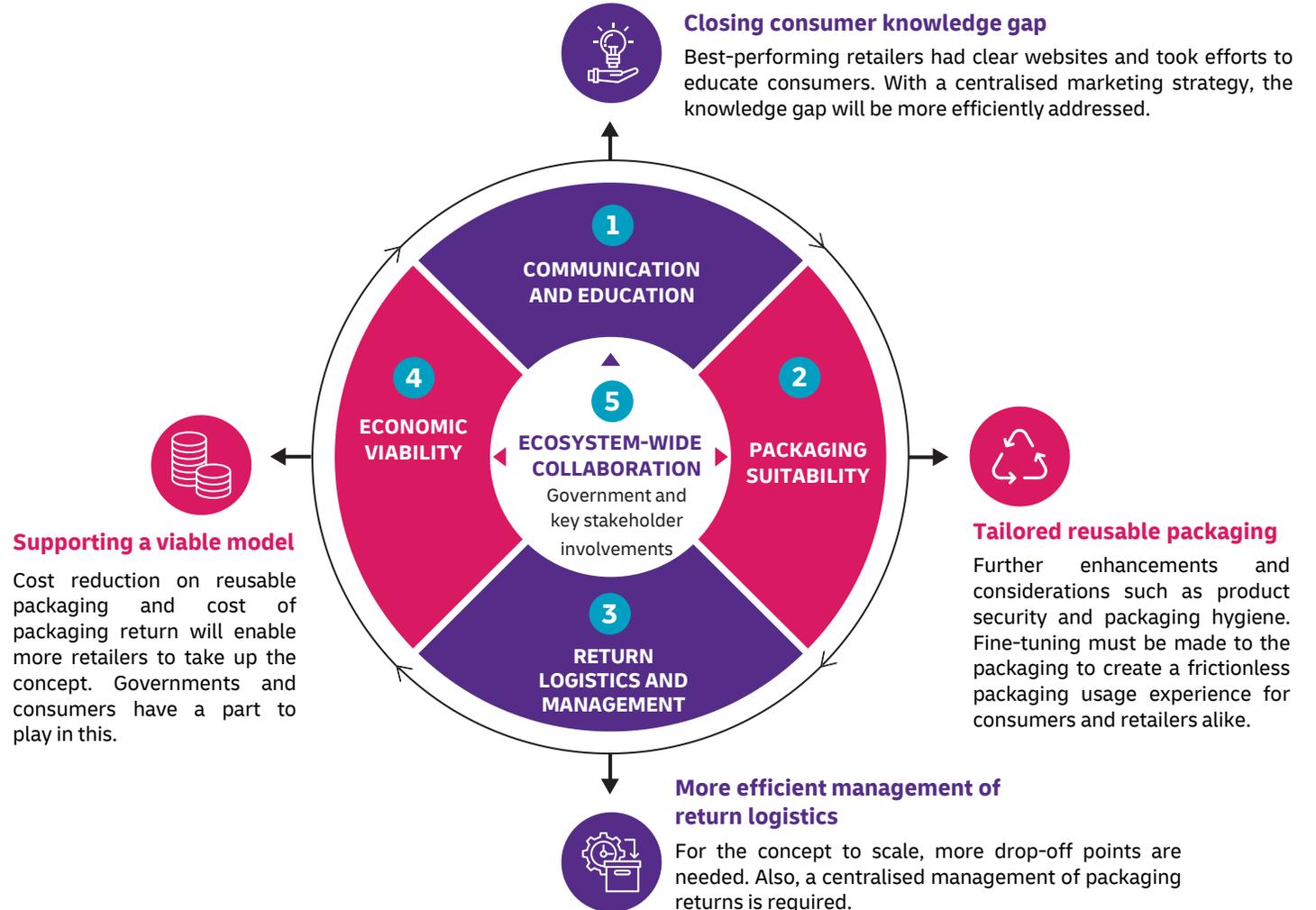
Running as the first of its kind in Asia Pacific, the reusable e-commerce packaging pilot initiative pointed us to five key considerations crucial for the concept to scale in Singapore.

**Under the pilot environment**, the group of 12 independent retailers each implemented the initiative on their own, taking charge of the setup, outreach, and communication with customers, with some guidance from the project team. Reusable packaging was obtained off-the-shelf, and the primary return logistics was handled by SingPost, both of which were sponsored and made available cost-free to retailers. While there are pros and cons to operating within these parameters, the five key considerations were developed to inspire more effective and efficient solutions.

**Scaling this concept** and making **reusable packaging the norm for Singaporean online buyers** entails

1. Providing mass education
2. Fine-tuning the design of the reusable packaging
3. Optimising the return logistics
4. Achieving economies of scale and economic viability
5. Facilitating ecosystem-wide collaboration

To achieve this quickly, larger players such as multi-brand e-commerce platforms like Zalora, department store chains like Metro, and marketplaces like Lazada can be targeted for the implementation of the reusable bag.



# 1 COMMUNICATION AND EDUCATION

## BEST PRACTICES

Retailers who fared better in garnering consumer opt-ins and returns all had clear and dedicated communication initiatives.

### Communication on e-commerce site

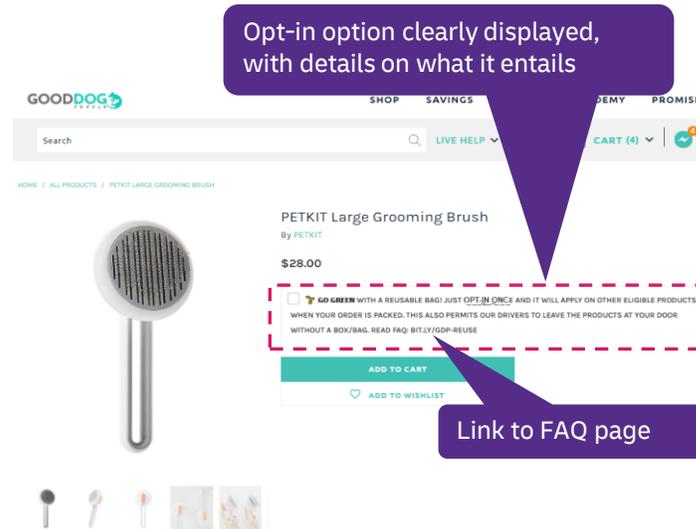
**Web-friendliness**, including clear awareness building on brands' homepages, easy opt-in on product pages and at checkout, and dedicated web segments with more information such as FAQs, has greatly boosted consumer opt-ins and returns for retailers who did it correctly.

For e-retailers who are online savvy and proficient in multimedia creation and web development, they found it easy and fast to deploy the necessary content on their websites in a user-friendly manner.

### Approaches to educating customers

**Creative approaches were used to engage consumer interest.** Outfytt utilised a panel display in their physical store in Haji Lane to introduce the concept, while Good Dog People™ went live on Instagram to encourage more consumers to try it. These efforts in consumer education paid off, as both retailers saw positive results in their return and opt-in rates respectively. Good Dog People™'s customers had found it easy to understand the pilot's intention, how it is conducted, and what to expect from opting for the reusable packaging.

**To accommodate customers of varying demographics,** Herbal Pharm took a different approach to enhance customer understanding of the concept. Their customer service team called less tech-savvy customers to clarify orders, delivery, and the packaging return procedure. As a result, Herbal Pharm's return rate exceeded the average of other retailers.



# COMMUNICATION AND EDUCATION

## APPROACH FOR CONSIDERATION



As the reusable packaging concept scales, there are a few productive ways to better tackle the topic on consumer communication and education, without requiring each retailer to take on the full responsibility.

### Concept renaming

“**Returnable packaging**” can be a clearer and more intuitive description of the concept. Some customers previously had confusion, thinking that the packaging was meant to be kept and reused personally.

### Collective awareness building

**Collective platform for brands** to come together can be established. With an official channel of communication, there can be a more collaborative effort in raising awareness and educating consumers on the importance of returning the packaging, and the steps for doing so.

### Communicating reusable packaging

**Information** on how the packaging works, and clear, localised instructions on how to return it should be labelled on the reusable packaging, to ensure consistent communication.

## 2 REUSABLE E-COMMERCE PACKAGING SUITABILITY

### TOP CONSIDERATIONS (1/2)

The reusable packagings used in the pilot were selected based on their design, functionality, and environmental sustainability; however, as they are off-the-shelf products, some changes and enhancements can be made.

**These changes to the reusable packaging design will help boost packaging adoption, close the communication loop with consumers, and enable retailers to operate with ease.**



**Packaging size.** During the pilot, retailers utilised SWOP and RePack mailing packaging, which facilitated the fulfilment of 30% to 95% of their opt-in orders. Bigger packaging with a wider base could accommodate the fulfilment of more opt-ins, while smaller packaging for items such as a soap bars or clothing could reduce the volumetric size and potential for product damage during shipping. The vertical VELCRO® tape on RePack allowed for customisable sizing.



**Prominent showcasing of localised return instructions.** Current return instructions are located at the base of the packaging, which may not be obvious to consumers. Instructions can also be localised and made specific with drop-off point details. QR codes can also be incorporated.



**Aesthetics.** Consumers found the reusable packaging to be more aesthetic than poly mailers, given its rather sturdy form and shape. However, some retailers highlighted how quickly the bag starts looking blemished. Especially the black packaging looked worn out when white residue was left behind from the return labels.



**Dealing with shipping/return label.** The label does not come off easily from SWOP packaging, leaving white residue. It comes off too easily from RePack, and is flagged as a concern by 3PLs. A dedicated and marked spot for sticking labels or a transparent slot for label insertion may be considered. Some retailers require further flexibility, as 3PLs have requested labels to be located on the side for easy scanning.

Label residue



DIY solution for labels



Instructions at the base



A larger alternative

# 2

## REUSABLE E-COMMERCE PACKAGING SUITABILITY

### TOP CONSIDERATIONS (2/2)



Furthermore, to future-proof the reusable packaging, these enhancements and considerations – from product security and protection to hygiene – can be further investigated.



**Anti-tampering.** Product security was a concern raised by some retailers prior to the start of the pilot initiative, especially as a VELCRO® seal can easily be opened. However, retailers did not receive any item loss reports or complaints in the process. Some chose to place the shipping label across the VELCRO® segment in place of an anti-tampering sticker. While it may not be a key issue in this pilot even for Herbal Pharm who retails high-value vitamins, the consumer survey revealed that some customers prefer proof of anti-tampering.



**Product protection.** The VELCRO® seal's strength and durability must be better communicated to retailers to give them the comfort that additional taping is not required to keep products secured in the packaging. Otherwise, unnecessary waste would be generated. However, the current packaging also does not resolve the concern about product damage, and fillers are still required by some retailers for fragile items.



**Packaging quality.** Packaging durability was praised by most retailers. However, Thryft saw faster deterioration of the packaging (within 3 uses), which may be due to the nature of products being shipped, i.e. books, which are relatively heavy and have sharper edges. The sides of the packaging are often damaged first. Additional folding made for packaging return weakens the packaging integrity quickly.



**Hygiene.** Retailers had initiated quality checks and packaging hygiene via thorough wipe-down of the reusable packaging. Some consumers had also shared concerns about the interior hygiene of the packaging given its reusability.

The pilot was made possible only with the support of SingPost and their posting box network for returns. For the concept to scale, more drop-off points are needed. Also, a centralised management of packaging returns, including marketing and education, is required.

#### SingPost's network was crucial

**The island-wide posting box was adopted by 90%<sup>1)</sup> of consumers in this pilot.** Amongst 12 retailers, only Good Dog People™, who in-sources their last-mile delivery, could offer customers the option to return the packaging directly to their courier. For the rest of the customers, who could choose between making returns via retailer's physical store or SingPost's posting boxes, convenience provided by the extensive SingPost posting box network was preferred.

**The pilot had helped market posting boxes, which can be utilised more.** As e-billing popularises, the concept of mailing out letters may be less known, especially with the Gen Zs and later. In a focus group discussion with a group of high school students, participants had, only through the session, better understood how posting boxes can be identified and located. As the reusable packaging concept scales and self-posting is made a norm for packaging return, it can help optimise the usage of the existing network infrastructures.

#### Drop-off points can be expanded

**Greater potential for a hybrid strategy (posting box and in-store).** As the concept scales to more retailers island-wide, brick-and-mortar retailers can also tap into the packaging returns to invite customers into their physical stores – a model adopted already by a few retailers onboard. Going a step further, if customers can make packaging returns in-store and at a network of retailers' premises, we can overcome the current constraint of limited in-store drop-off points.

**Alternative drop-off points.** Beyond this pilot initiative, the availability of more drop-off points island-wide would help improve the take-up of this concept and return rates of the reusable packaging, as convenience is still a key deciding factor for consumers. In a survey of 100 consumers, 77% of the respondents agreed that convenience influenced their decision to opt in for reusable packaging.

#### An operator for return logistics

**There could be an entity managing return logistics for the concept to scale.** Currently, reusable packagings are returned to and self-managed by each retailer. As the volume of opt-ins and returns scales, new solutions are needed. For instance, retailers receiving packaging back into their warehouse letter box had found it unsustainable to check and clear them frequently. There is also a size constraint on retailers' letter box. Having an entity consolidating and redistributing the packaging would bring substantial economies of scale in operations and greater efficiency in the return logistics.

**A more centralised management of reusable packaging would allow greater control over packaging return, including return rates.** Currently, high efforts are taken by individual retailers to encourage return. If the concept is taken by a separate entity, e.g. packaging company or logistics company, there would be a more concerted push at scale for targeted and effective initiatives to educate consumers, including the need to return, which is fundamental for the reusable packaging concept to work.



1) 90% as an estimate, with the assumption that all retailers have similar order base and opt-in rate

# 4

## ECONOMIC VIABILITY

### TAKING THE CONCEPT BEYOND THE PILOT



Better Packaging Co. and SingPost supported the pilot with reusable packaging and returns logistics respectively. Government support, subsidized returns, and initiatives to boost returns are key levers, along with a commercially viable model.

#### Making financial sense for retailers

**Retailers’ ability to absorb further costs is limited.** Retailers cited increasing operational costs, including logistics costs associated with rent, petrol, and raw material costs, as limitations to their ability to absorb further costs. This is more so for retailers selling low margin products on marketplaces where consumers generally expect products to be competitively priced.

**Retailers selling high-margin products and whose core business is driven by sustainability may be willing to pay.** A few pilot retailers who are willing to pay a premium for eco-friendly options quoted an ability to absorb a \$0.50 premium on reusable packaging for each order.

**Government support, subsidised return fees, and deposits from consumers** to ensure packaging returns were key suggestions from retailers to help make the concept economically viable.

#### Retailers’ threshold

**Packaging costs differ widely across retailers.** Retailers' packaging costs range from \$0.05 for a poly mailer and \$0.35 for a casava packaging, to between \$0.50 and \$2.50 for a customised and recycled paper box.

**Willingness to pay for each reusable packaging use and return fees is tagged to retailers’ existing packaging costs.** Retailers in this pilot are willing to pay between \$0.50 and \$2.50 for a reusable packaging, and between \$0.50 and \$1.50 for the packaging return fee.

#### Return rate matters

**Ultimately, return rates greatly influence the price retailers need to pay for each reusable packaging use.** At the current average return rate of about 50%, the reusable packaging can be used only twice. Hence, a centralised manager would need to ensure that consumers are educated, drop-off points are sufficiently convenient, and a system is in place to ensure that reusable packaging achieves its intended use count.

Only with a return rate in the 80% range would a higher marginal improvement in use per packaging be observed, where the number of times a packaging can be used will range between 5 and 9 times.

Use per packaging <sup>1)</sup>	Return rate
1	1%
2	50%
3	66%
4	75%
5	80%
6	83%
7	86%
8	88%
9	90%
10	91%

1) Based on phase 1 feasibility report titled “Delivering on Circularity – Feasibility Study for Reusable E-commerce Packaging in Singapore”

# 4 ECONOMIC VIABILITY

## WORKABLE VALUES FOR RETAILERS

The reusable packaging concept is already generating savings for some retailers at current rates, i.e. costs of packaging and return logistics, and at a 50-83% range of reusable packaging return rates. At greater scale, as costs reduce and return rates improve, the concept will be economically viable for more retailers.



Return rate	Use count	Reusable packaging cost								
		Pilot			Feasible short-term targets			Feasible short-term targets		
		\$3.00	\$2.50	\$2.00	\$1.50	\$1.00	\$0.50	\$1.50	\$1.00	\$0.50
		Return postage cost			Return postage cost			Return postage cost		
		\$1.50	\$1.00	\$0.50	\$1.50	\$1.00	\$0.50	\$1.50	\$1.00	\$0.50
		Cost per use								
<50%	1	\$3.00	\$3.00	\$3.00	\$2.50	\$2.50	\$2.50	\$2.00	\$2.00	\$2.00
50%	2	\$2.25	\$2.00	\$1.75	\$2.00	\$1.75	\$1.50	\$1.75	\$1.50	\$1.25
66%	3	\$2.00	\$1.67	\$1.33	\$1.83	\$1.50	\$1.17	\$1.67	\$1.33	\$1.00
75%	4	\$1.88	\$1.50	\$1.13	\$1.75	\$1.38	\$1.00	\$1.63	\$1.25	\$0.88
80%	5	\$1.80	\$1.40	\$1.00	\$1.70	\$1.30	\$0.90	\$1.60	\$1.20	\$0.80
83%	6	\$1.75	\$1.33	\$0.92	\$1.67	\$1.25	\$0.83	\$1.58	\$1.17	\$0.75
86%	7	\$1.71	\$1.29	\$0.86	\$1.64	\$1.21	\$0.79	\$1.57	\$1.14	\$0.71
88%	8	\$1.69	\$1.25	\$0.81	\$1.63	\$1.19	\$0.75	\$1.56	\$1.13	\$0.69
90%	9	\$1.67	\$1.22	\$0.78	\$1.61	\$1.17	\$0.72	\$1.56	\$1.11	\$0.67
91%	10	\$1.65	\$1.20	\$0.75	\$1.60	\$1.15	\$0.70	\$1.55	\$1.10	\$0.65

\$1.50 < Costs < \$2.50

Costs < \$1.50



### Feasible for some retailers at current rates<sup>1)</sup>

Retailers fulfilling orders in paper boxes may switch more readily to reusable bags compared to those using poly mailers. At the current price of \$3 for a reusable packaging, and a normal parcel return via SingPost at \$1.50, retailers with an average return rate in the 50-83% range will see the cost per use of a reusable packaging averaging to below \$2, which is on par with the price of a customised paper box for some retailers. Of the 12 retailers in this pilot, 3 had already seen cost savings potential and started to pursue the option.



### Realistic to scale the concept

Marginal reduction in costs and improvement in return rates will enable more retailers to take up the concept. With scale, reusable packaging may be supplied at lower costs. Together with a dedicated and optimised return logistics for the reusable packaging, the cost per use of a reusable packaging can go below \$1 and made viable to more retailers.

1) Retailers do not need to pay for the reusable packaging and return logistics in this pilot. However, for the purpose of analysis, the current rates are used and assumed to be borne by retailers

# 4 ECONOMIC VIABILITY

## CONSUMERS' CONTRIBUTIONS

Consumers can contribute to making the concept economically viable via their participation in a deposit system or by absorbing some costs. In a survey with 487 consumers, 3 in 4 are willing to contribute in either way.



### Implementing a deposit system

Consumers are receptive to a deposit system, which will help improve return rates. 3 in 4 consumers are willing to pay for a minimum deposit of \$2 for orders fulfilled in reusable packaging, in a scenario where the deposit is refunded upon the packaging return. However, the feasibility and costs associated with the tracking of individual packaging returns and refunds must be considered.

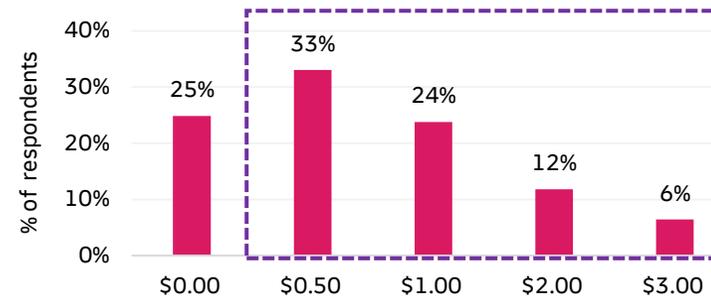
Deposit consumer willing to pay



### Possibility of passing some costs to consumers

As a consideration, a small fee can be passed on to consumers for orders to be fulfilled in reusable packaging. Similar to the willingness to pay for a deposit, 3 in 4 consumers are willing to pay for the option. A maximum fee of \$0.50 is feasible, while ensuring that the opt-in rate would not be greatly impacted. At values greater than that, e.g. at \$1, only 42% of the consumers would be willing to pay.

Fee consumer willing to pay



## Education

- **Increase awareness and understanding of the concept.** Better inform consumers of this option, how it works, what the positive impacts are, and why returning is equally important. This helps improve the take up rate of this concept; consumers are crucial in providing pressure to retailers to commit to this.
- **Increase receptiveness to used packaging.** Used but good is a key message to spread; consumer receptiveness is gaining traction according to observations made by Refash.
- **Changing consumer habits.** There is a need to make reusable packaging a norm. Eddie Lim, Founder of Thryft, feels that Singaporeans are acclimatised to single-use packaging offered by e-commerce. He urges consumers to reconsider how they expect online orders to be shipped.

“

While consumers in their 40s and above used to be less receptive to thrifting secondhand clothes, their mindsets are changing, and the stigma is waning.

– See Toh Yuen Yee  
Marketing Manager, Refash

”

## Legislation and intervention

- **Design policy/guideline to support the shift.** The tray return mandate and the upcoming disposable carrier bag charge requirement are strong drivers for change. Similar legislation related to single-use packaging can help consumers quickly shift towards a new normal, while encouraging businesses to seek out solutions to the e-commerce packaging waste problem.

“

At Unpackt, we aim to cultivate a community that cares. We have been very active in initiating outreach programmes, but we often face limited reach and effectiveness, and notice the people often go back to their old ways. Legislation and government intervention are crucial for a systemic change.

– Jeff Lam  
Founder, Unpackt

“

If this becomes a nation-wide project, not only would people become more aware, but they would see that the concept is “government approved” and legitimate. If Singaporeans are more exposed to the concept, they would eventually see its point. I believe that education will get easier over time!

– Diana Naicu  
E-commerce Manager, iRun

## Grants and incentives

- **Provide grants and tax relief, and facilitate corporate sponsorship.** Provide support according to the scale of the business. Small and medium-sized enterprises (SMEs) who have greater operational flexibility would also be encouraged to design solutions. For instance, Herbal Pharm self-funded an initiative to make an internal switch in product packaging from plastic to aluminum-based packaging, a move that not all retailers can make.
- **Incentives for consumers.** Provide incentives for consumers to make the first switch to reusable packaging. The National Step Challenge is an example of how incentives can work well.

“

If e-commerce sales in Singapore are expected to reach S\$20B by 2027, e-commerce packaging waste will become too big of a problem to ignore. As we're taking firm actions to build a sustainable future with The Singapore Green Plan 2030, I believe more schemes can be introduced to relieve businesses of bearing the full brunt of higher operational cost in switching over to sustainable packaging, especially when facing competing priorities. Consumer incentives may also encourage more Singaporeans to adopt or even demand more sustainable packaging. Everyone will then be able to play a part in making a sustainable future a reality.

– Terry Peh  
Founder, Good Dog People™

## ECOSYSTEM-WIDE COLLABORATION

### KEY STAKEHOLDERS WITH A COMMERCIAL OPPORTUNITY IN THIS

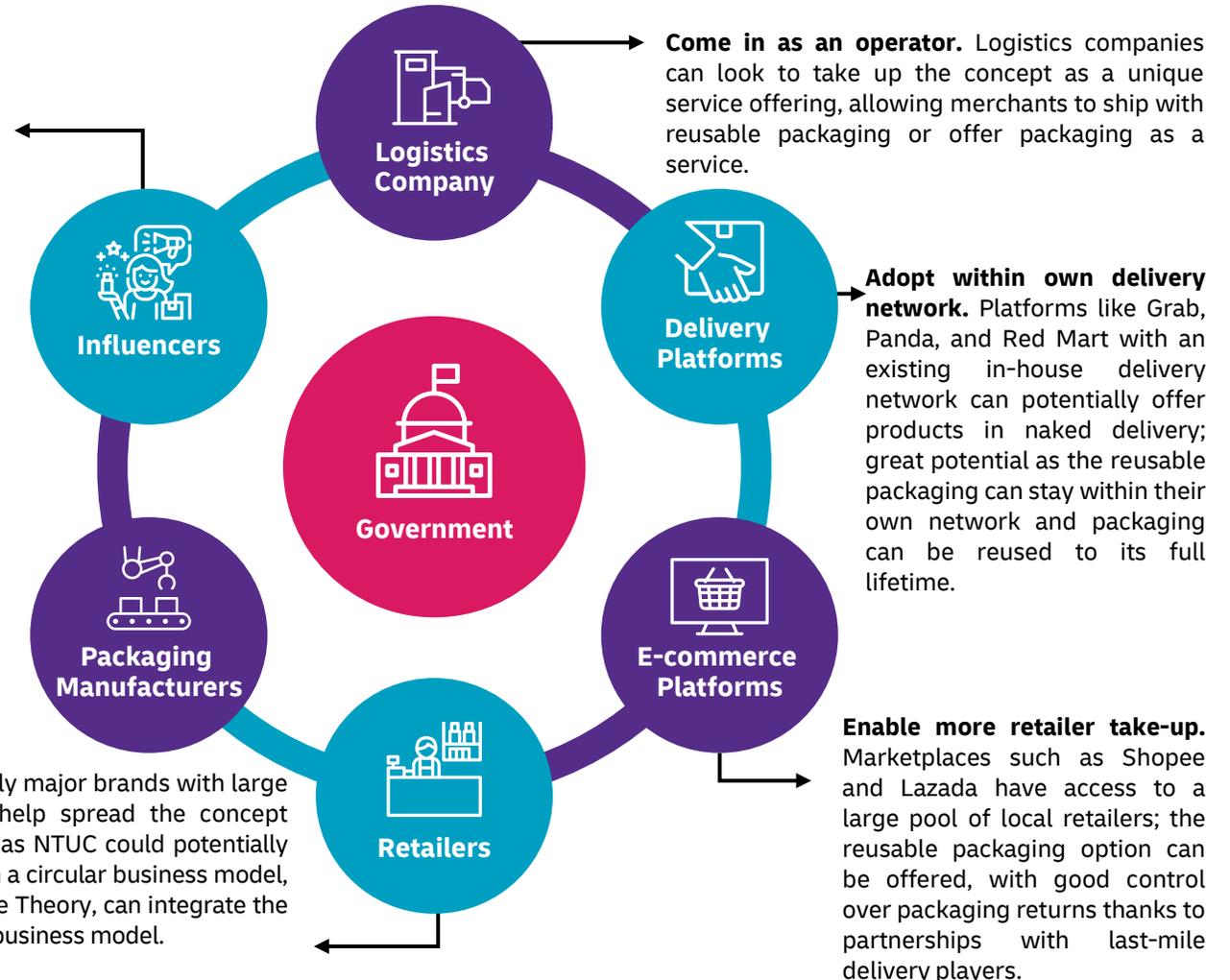
For reusable packaging to take off and scale in Singapore, logistics players, platforms and retailers, and packaging suppliers must come together to collaborate. The government or a private operator would best enable this ecosystem to function beyond this pilot initiative.



**Function as a key conduit to consumers.** Green is the new black – the concept can be made viral. Influencers are good with content creation; knowing how to engage influencers and the larger social media community would help scale the concept quickly.

**Come in as a supplier/ operator.** Singapore can look to nurture businesses to set up facilities in Singapore, reducing emissions associated with transportation to retailers.

**Be the key retailers.** Retailers, especially major brands with large customer bases such as Zalora, can help spread the concept quickly. Brick-and-mortar retailers such as NTUC could potentially come in as drop-off points. Retailers with a circular business model, e.g. clothes subscription entities like Style Theory, can integrate the reusable packaging concept within their business model.





# SECTION 4: TOWARDS A MORE SUSTAINABLE E-COMMERCE

Explore what we have achieved from the pilot initiative and assess where we stand in our vision of creating a circular economy.

# THE PILOT HAD PROVEN THAT THE REUSABLE E-COMMERCE PACKAGING CONCEPT IS FEASIBLE; RETAILERS ARE SUPPORTIVE BASED ON THEIR EXPERIENCES

## Ease of implementation

“

*I will **definitely recommend other retailers to take up the reusable packaging**, especially with the **cost savings and ease of implementation**. Beyond this pilot, this concept is something we will continue to explore, and we are keen to implement the concept on our own; we just need to work out how we can get customers to return the packaging to us.*

— **Adeline Koo**  
Head of Marketing, Davines

”

## Corporate responsibility

“

***Businesses must recognise and be accountable** for the enormous impact they have on the environment. This pilot has shown us that the **corporate opportunity** to reduce e-commerce waste is definitely feasible and still in its very early stages. We have just started with this pilot, and we are looking forward to doing more alongside other SMEs in Singapore.*

— **Terry Peh**  
Founder, Good Dog People™

”

## Empowering customers

“

*I think this concept is a great idea that hopefully can be taken on a bigger scale if more people can join in. **This is an interactive commitment**, and if we want to be a more sustainable country and business, retailers can start by building a connection with customers through this. We should be at the forefront of sustainability as we only have one Earth, and **the easy choice may not be the right one**. We must do our part.*

— **Stephanie Colhag Yeo**  
Founder, Outfyt

”

## Understanding customers

“

*I think the pilot was fantastic. Prior to this, we had no clue how we could solve the plastic waste problem. Now, having had the **luxury of trialling the reusable packaging, we managed to take home many important learnings**. At the same time, we have also **learnt a great deal about our customers**, where we can identify customers who are serious about committing to the environment. Going forward, we are **empowered to be more ambitious**, and we hope to contribute more to our PACT commitment.*

— **Helen Chen**  
Vice President of Marketing, Herbal Pharm

”

## Collective effort for change

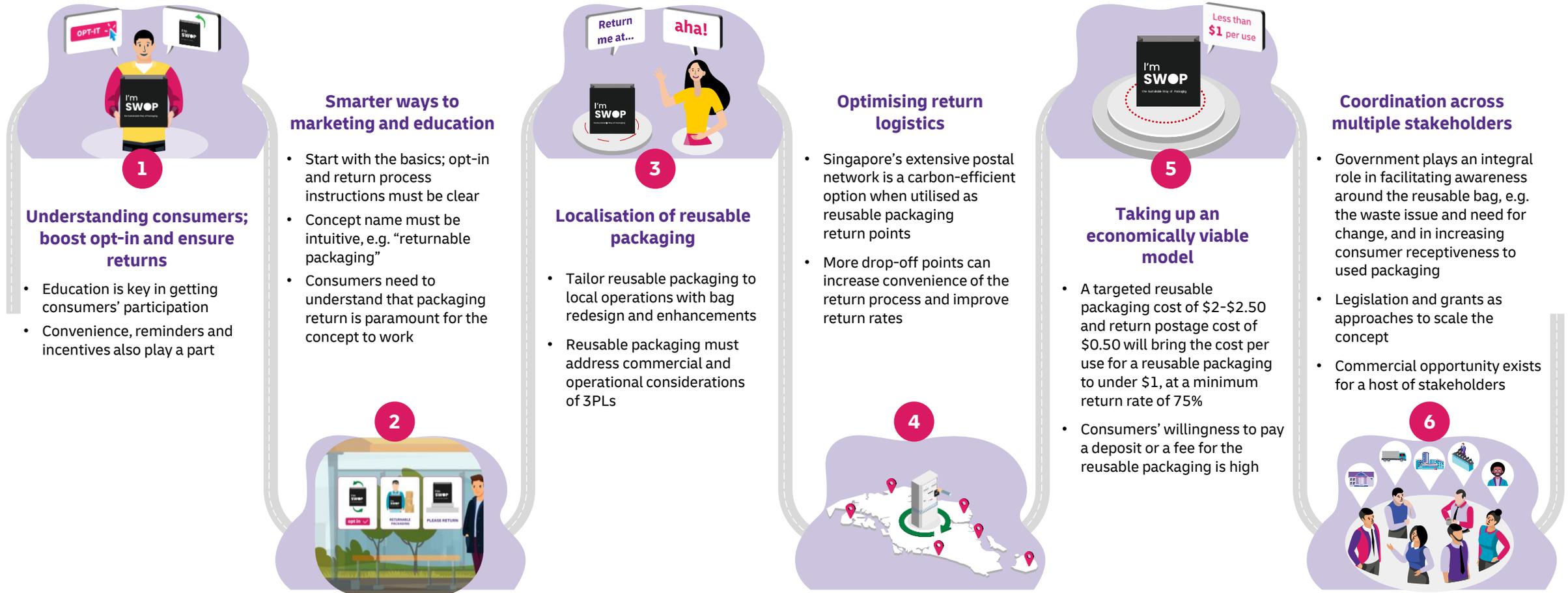
“

*I think it is a very good project and more people should be involved. **Collectively, we can effect change, and the benefits will be made more apparent**. By taking this first step to change the consumer mindset about dealing with and reducing single-use packaging, we can help change their mindset in other areas for social and environmental good. As the e-commerce scene continues to boom, I hope the **right parties will come in to find synergies and optimise this concept**. The government can play a pivotal role.*

— **Diana Naicu**  
E-commerce Manager, iRun

”

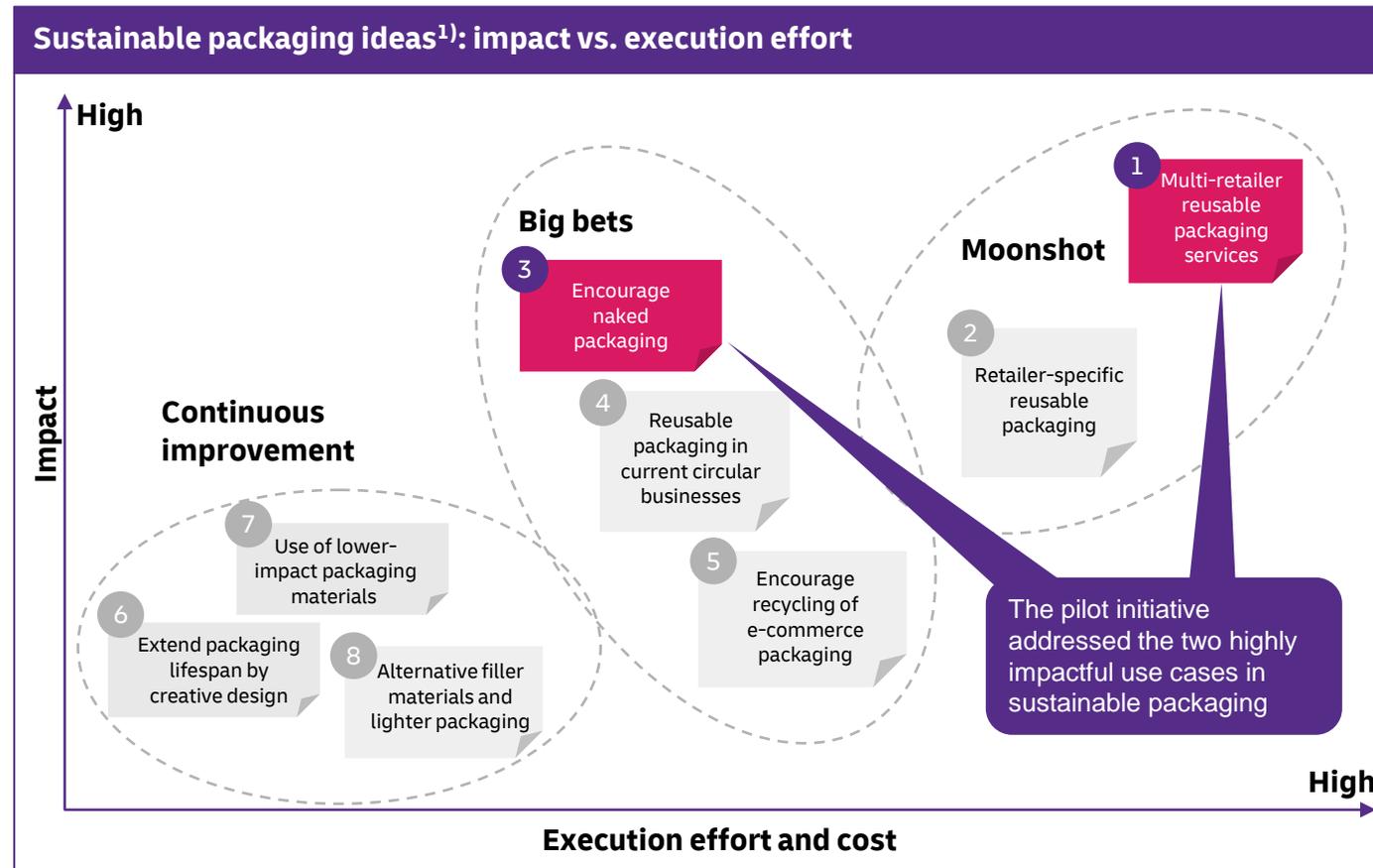
# THE INDUSTRY ROADMAP TO SCALE THE REUSABLE E-COMMERCE PACKAGING CONCEPT IN SINGAPORE REQUIRES COORDINATION ACROSS STAKEHOLDERS



# THE REUSABLE E-COMMERCE PACKAGING CONCEPT WILL BRING HIGH IMPACT CHANGE, THROUGH LOWER RESOURCE USE AND THE CREATION OF A CIRCULAR ECONOMY

The reusable packaging pilot was an ambitious undertaking. Having proved its feasibility, we can celebrate our first step towards a more circular economy.

The feasibility study “Delivering on Circularity” defined several alternative ideas to reusable packaging, which are categorised based on their impact and execution effort. The pilot initiative aimed to test the ambitious use case of a multi-retailer reusable packaging service and saw a very positive outcome. While the actual implementation of this concept will be a long journey requiring coordination with multiple stakeholders, retailers can implement continuous improvement ideas in the short to mid terms.



**Impact**

Determined by

- 1) Potential share of deliveries
- 2) Packaging reduction potential per delivery

**Effort**

Based on

- 1) Change in current customer behaviour
- 2) Change in operational process
- 3) Cost



1) Matrix based on the “Delivering on Circularity” feasibility report

# THE VISION FOR CIRCULARITY STARTS HERE



## Understanding circularity

- A circular economy goes beyond recycling
- It is a regenerative model that strives to keep resources in our daily use for as long as possible
- The system keeps materials at “highest market value”, before allowing them to be considered for recycling and, eventually, disposal
- Across the e-retail sector, secondary packaging is a product that can be produced and consumed with circularity in mind

## Reusable packaging is the way to go

- This return and reuse system aligns with the circular economy's principle of reusing resources in a prolonged manner
- It required less extraction of new resources compared to the manufacturing of single-use packaging
- Thus, it ensures the sustainable use of Earth's limited resources
- Furthermore, retailers can enjoy packaging cost savings – a potential already seen by 25% of retailers in this pilot

## Give consumers the option for change

- In practice, e-commerce orders are now fulfilled in single-use packaging that consumers cannot refuse at checkout
- Single-use packaging is immediately recycled or disposed of after consumers unpack their orders
- As e-commerce continues to grow rapidly, we need to commit to tackling e-commerce waste
- This pilot programme proved that consumer sentiments and behaviours are positive towards this concept – the industry must come together to impact change

# AN AMBITIOUS VISION FOR CIRCULARITY BEGINS WITH A MINDSET SHIFT AMONG ALL STAKEHOLDERS AND AN UNDERSTANDING OF SHARED RESPONSIBILITY



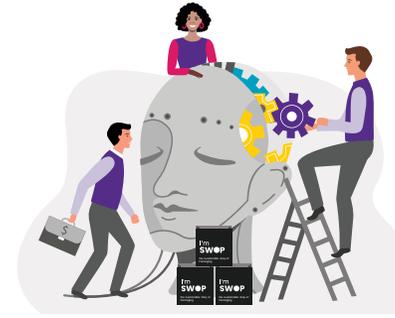
## Beyond financial costs – accepting inconvenience

- It is important for consumers to recognise and eventually accept that **better, eco-friendly options** may come at the **cost of some inconvenience**
- The pilot programme has shown that making the return process convenient is crucial in encouraging the use and return of reusable e-commerce packaging
- Although making the return process more convenient is a step forward, it will **still require some time and effort** from consumers, as compared to using single-use packaging



## The role of incentives – educate and encourage initial adoption

- Incentives can be effective in promoting the use and return of reusable packaging, but should **not be the only motivator nor an expected prerequisite** for consumers to make sustainable choices
- Incentives serve to **educate and encourage initial adoption**
- In the longer term, the goal is for reusable packaging to be the **go-to option for consumers**



## Mindset shift in investors – good sustainable profits

- For businesses and investors, the adoption of reusable e-commerce packaging may come at the **cost** of initial time investment or higher packaging expense, particularly **during the initial implementation phase before economies of scale can be achieved**
- Regardless of whether the decision is driven by investors or business leaders, or by employees, **their mindset shift is also necessary**
- This means **re-evaluating the concept of a good business** and **balancing** the focus on profits with the consideration of environmental costs and sustainable practices for **long-term success**



## Challenging limits and creating an ambitious vision for good

- The **multi-retailer reusable e-commerce packaging concept is the target** to help reduce e-commerce packaging waste with the greatest impact on our current state
- In the future, we can **push boundaries further by questioning the need for any external packaging**; logistics players should work to create systems that enable this, and consumers should actively rethink the amount of packaging they require and influence business decisions on packaging design and usage through their choices
- With **collaboration** among stakeholders, **innovation**, and **determination**, we can strive towards a greater vision and achieve a **sustainable reality**



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EIG Dermal Wellness (S) Pte Ltd (Davines)

Herbal Pharm Pte Ltd

Outfyt Pte Ltd

Refash Pte Ltd

Retykle (Singapore) Pte Ltd

Rusby & Co Pte Ltd (Good Dog People™)

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487 participants of the consumer survey  
10 participants in the focus group discussion  
Volunteers at the pilot exhibition



## **A BUSINESS INITIATIVE THAT AIMS TO REDUCE WASTE AND MOVE TOWARDS A CIRCULAR ECONOMY.**

To find out more about PACT,  
please contact [markets@wwf.sg](mailto:markets@wwf.sg) or visit [plastic-action.asia](http://plastic-action.asia)

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