

EPSON

ROAD TO SUSTAINABLE PRINTING:

EXPLORING ATTITUDES AND BEHAVIOURS IN SOUTHEAST ASIA



EXECUTIVE SUMMARY

Communicating the value of sustainable technology to usher in a new print era

Sweeping technological changes brought on by the pandemic have shaped the way we work – and in turn, the way we print. But perhaps not in the ways that you might expect.

Hybrid working and increased digitalisation have increased the need for flexibility in how we print, as well as how we don't print – including a rise in efforts to use softcopy documents and file sharing. And while many (34%) of our survey respondents reported no change in printing habits following a shift to hybrid working arrangements – and 24% actually reported an increase – what has changed is an increased awareness across businesses in Southeast Asia of sustainability solutions, and desire to find eco-friendly printing options that lessen the impact on our environment.

Printing remains crucial in the corporate world, with 40% overall respondents using it on a daily basis. 74% of individuals and companies are 'very' and 'moderately' aware of the environmental impact of printing – while 66% state sustainability is an important factor when using or choosing a printer. Not to mention, many are thinking more deeply about their choices as they adopt sustainable practices, such as double-sided printing (38%) and participating in paper recycling initiatives (34%). There's also a case for sustainable practices influencing buying decisions, with the majority seeking environmentally-friendly printers.

What has been made clear from our survey data, however, is that despite this increased awareness of sustainability and desire to be more eco-friendly, there is a need for more education surrounding what this actually looks like. When asked which type of office printer do respondents believe has a lower environmental impact, 34% said laser copiers and 29% said inkjet printers, indicating a significant misperception about which type of printer is more eco-friendly. The good news is that the desire is there – with 53% saying they would definitely switch to an inkjet printer from a laser copier if it was shown to have more eco-friendly outcomes.

Of course, factors such as cost remain a barrier for choosing a business inkjet printer for more than half of respondents – but 63% are 'likely' or 'very likely' to pay more for sustainable printing solutions. The key here is education, and understanding the long-term benefits of investing in sustainable technology.

As with any change and shifting behaviours, it takes time – and it's important that businesses are able to compare trends and patterns to see where those gaps are, and what they could be doing better.

I hope this report enables you to take away some strong insights, which help inform your decision-making for the good of the environment – and your business.

**Jester Cruz, Senior Regional Manager
for Corporate Products, Epson Southeast Asia**



METHODOLOGY

Epson Southeast Asia conducted a survey on office equipment decision makers and end-users (n=1,500 overall) across Singapore, Malaysia, Thailand, Indonesia, The Philippines, and Vietnam. The survey was conducted via Milieu Insight's proprietary survey community in March 2024.



KEY FINDINGS: Sustainability matters to most – but there is still a lack of understanding

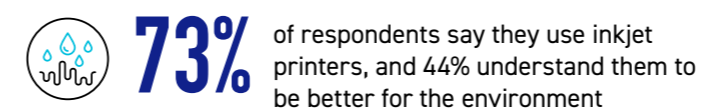
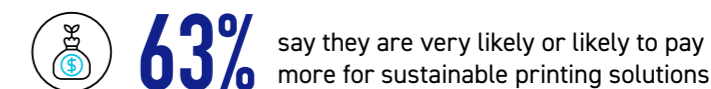
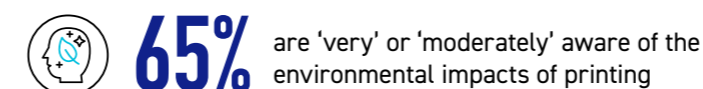
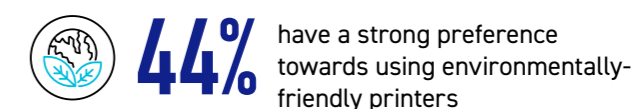
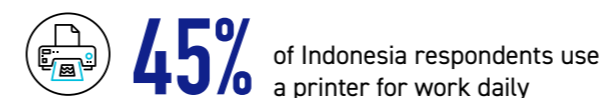
Organisations regionally have mostly good intentions and high awareness overall when it comes to considering sustainability for printing matters – but there is a gap between this awareness and taking action.

Our research found that both laser and inkjet printers are equally being used in the workplace. Specifically, in Indonesia, the Philippines, and Vietnam, inkjet printers are more popular than laser printers. However, there is a need for more education around this. One third (34%) of respondents perceived laser printers to have a lower environmental impact compared to inkjet printers, while 29% believed inkjet printers to be better for the environment. A further 29% were unsure about the comparison and, worryingly, when asked if they would switch from laser to inkjet, only half (53%) said yes, while 43% said they would need more information before deciding.



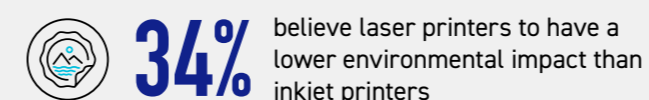
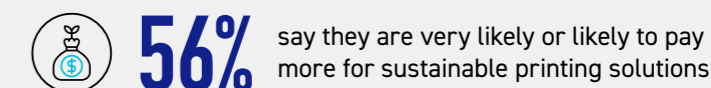
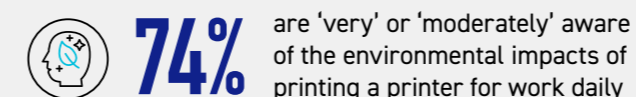
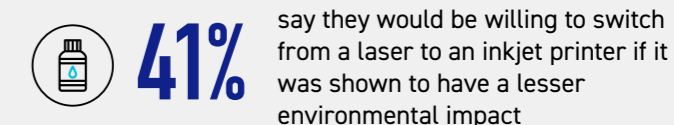
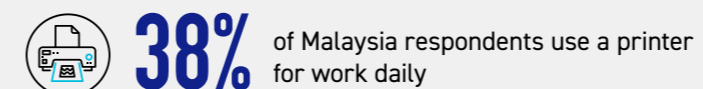
Indonesia

Indonesians are on par with the Philippines, and behind only Vietnam, when it comes to printer usage frequency. Thankfully, their high usage comes with a high understanding of sustainability measures for reducing the environmental impact of printing. Just under one third are 'very likely' to invest more money in sustainable solutions, putting them marginally behind Vietnam, Thailand and the Philippines.



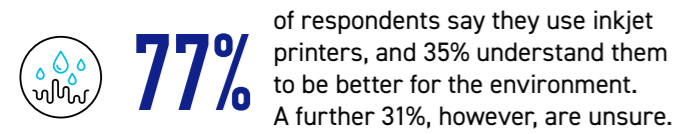
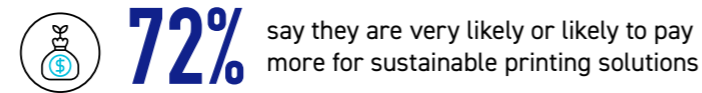
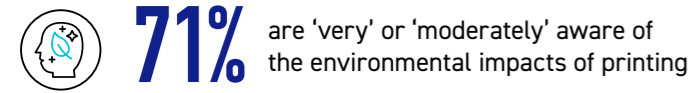
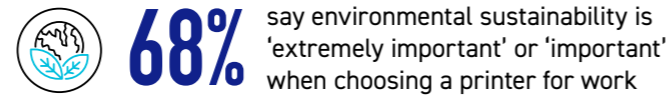
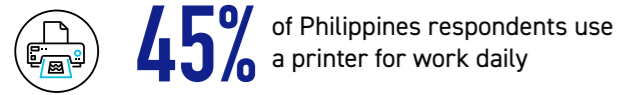
Malaysia

Malaysians demonstrate good intentions, with environmental sustainability rated between 'important' to 'somewhat important' for the majority. However, despite most respondents saying they're aware of the environmental impacts of printing, most incorrectly believe laser printers to be better for the environment than inkjet. Thankfully, they're willing to switch – but cost is a big consideration.



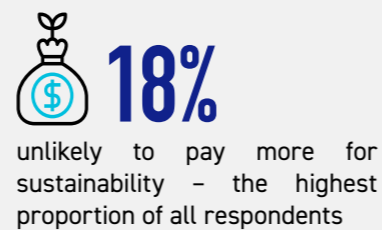
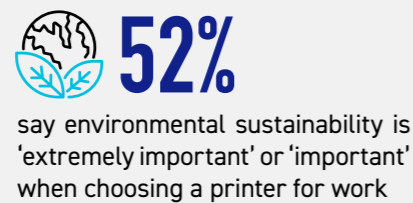
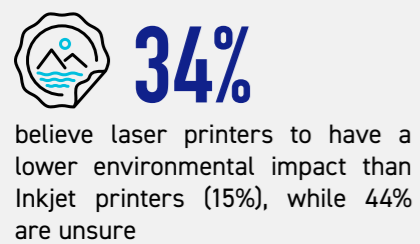
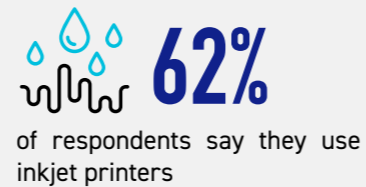
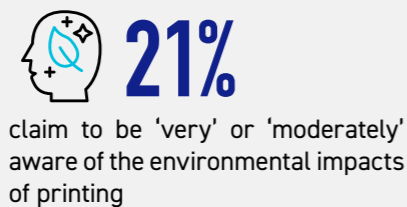
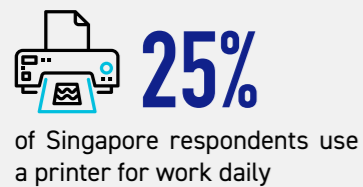
Philippines

More than half of all Filipinos (54%) strongly prefer environmentally friendly printing practices, and are only behind Indonesia when it comes to using eco-friendly printers and supplies (52%). They also show the highest willingness for implementing sustainable procurement processes and offering training sessions on sustainable printing practices.



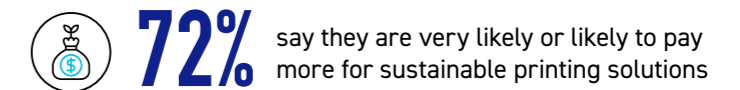
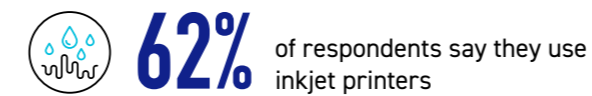
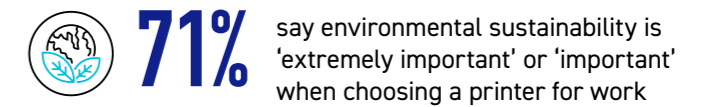
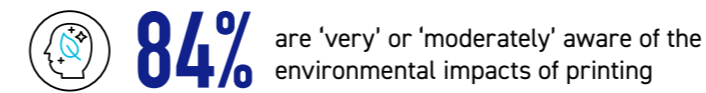
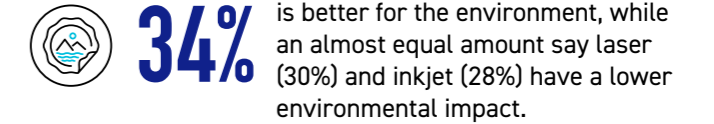
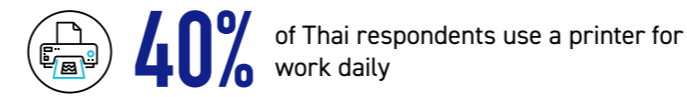
Singapore

Citing increased awareness of sustainable printing practices, Singaporeans showed the greatest reduction in office printing (43%), but are also least likely (24%) to use printers that are environmentally friendly. Singapore also had the highest number of respondents who were least likely to pay for sustainable features.



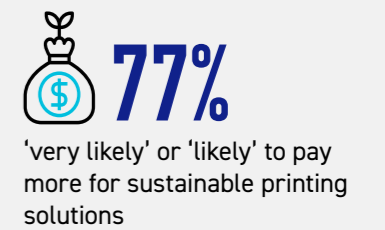
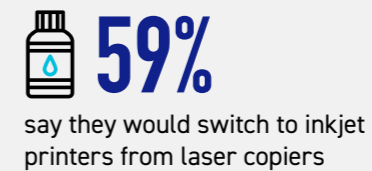
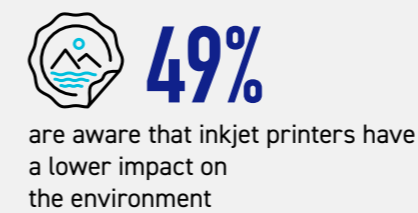
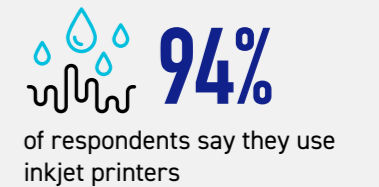
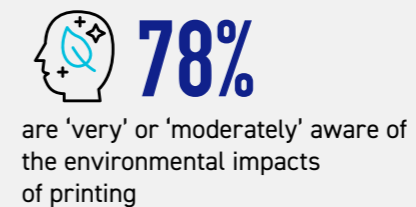
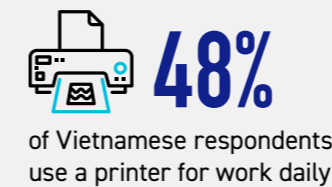
Thailand

Although most Thais claim to be aware of the environmental impact of printing, just under half would prefer to use a printer that is environmentally friendly. That said, Thailand leads the region in promoting sustainable printing, specifically when it comes to implementing policies to encourage reduced printing (50%). Both Thailand and the Philippines are among those most willing to switch to inkjet printers.



Vietnam

Vietnamese respondents print the most out of all markets surveyed, either daily or 4-6 times a week. Perhaps because of this, respondents are very aware of their environmental impact - with the country having the highest number of respondents using inkjet printers, and the highest awareness that they have a lower impact on the environment.



Printing is alive, but digitalisation has led to lasting changes

Digital capabilities that were once regarded as nice to have are now necessities in daily business operations. For many organisations, starting with digital document sharing is a logical first step in their digitalisation journey.



Exploring the rise of digitalisation



44%
use softcopy documents



24%
use both softcopy documents and print more



19%
rarely need to print hardcopy documents



13%
use less softcopy documents and print more

34%
reported no change in printing habits following a shift to hybrid work arrangements

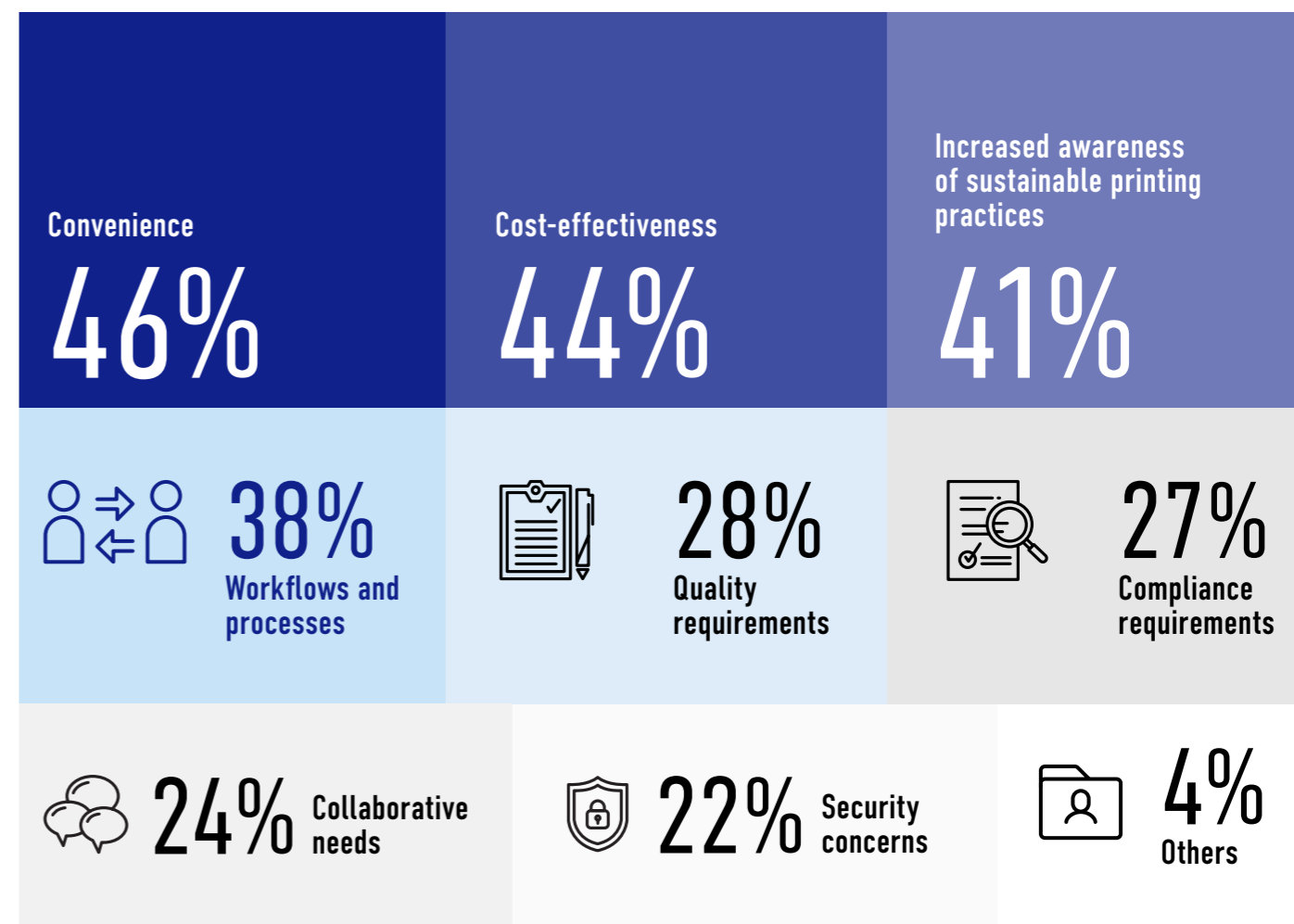
24%
reported an increase in printing frequency

In Southeast Asia, 36% of those surveyed said they have reduced printing in the office, while 34% experienced no change, and 24% said they started to print more. More traditional sectors, including construction (39%) and retail (40%), appear slower to switch to softcopy compared to sectors such as consulting and professional services (50%) and advertising and marketing (48%).

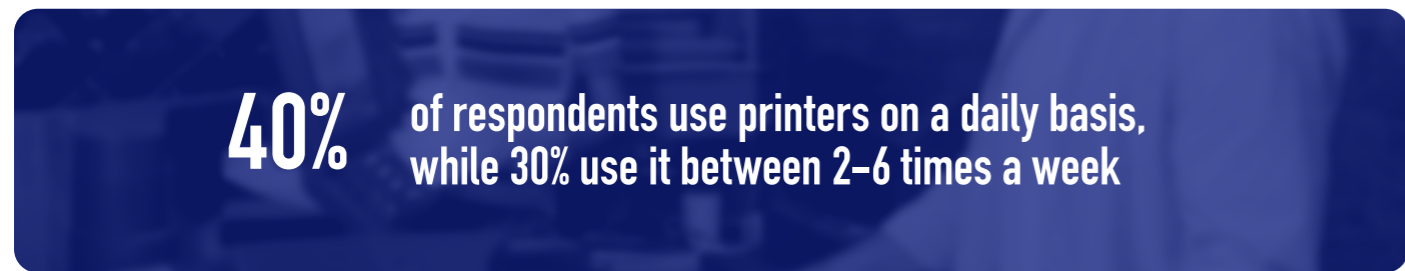
The size of a business matters too, with 41% of small businesses (1-50 employees) and 48% of medium-sized businesses (51-500 employees) switching to softcopy documents. Larger businesses (501+ employees), which are likely to be less agile, fall between the two with 45% using softcopy documents.

There are many factors contributing to changing printing habits, including convenience (46%), cost effectiveness (44%) and the increased awareness of sustainable printing practices (41%). These insights highlight the importance of balancing practicality, sustainability, and cost-efficiency in printing practices – as well as supporting office workers to catch up on sustainability initiatives.

Factors contributing to changing printing habits in the office



Printing behaviours have evolved, but despite advancements in digitalisation, many businesses and employees still consider it a crucial part of the workplace.

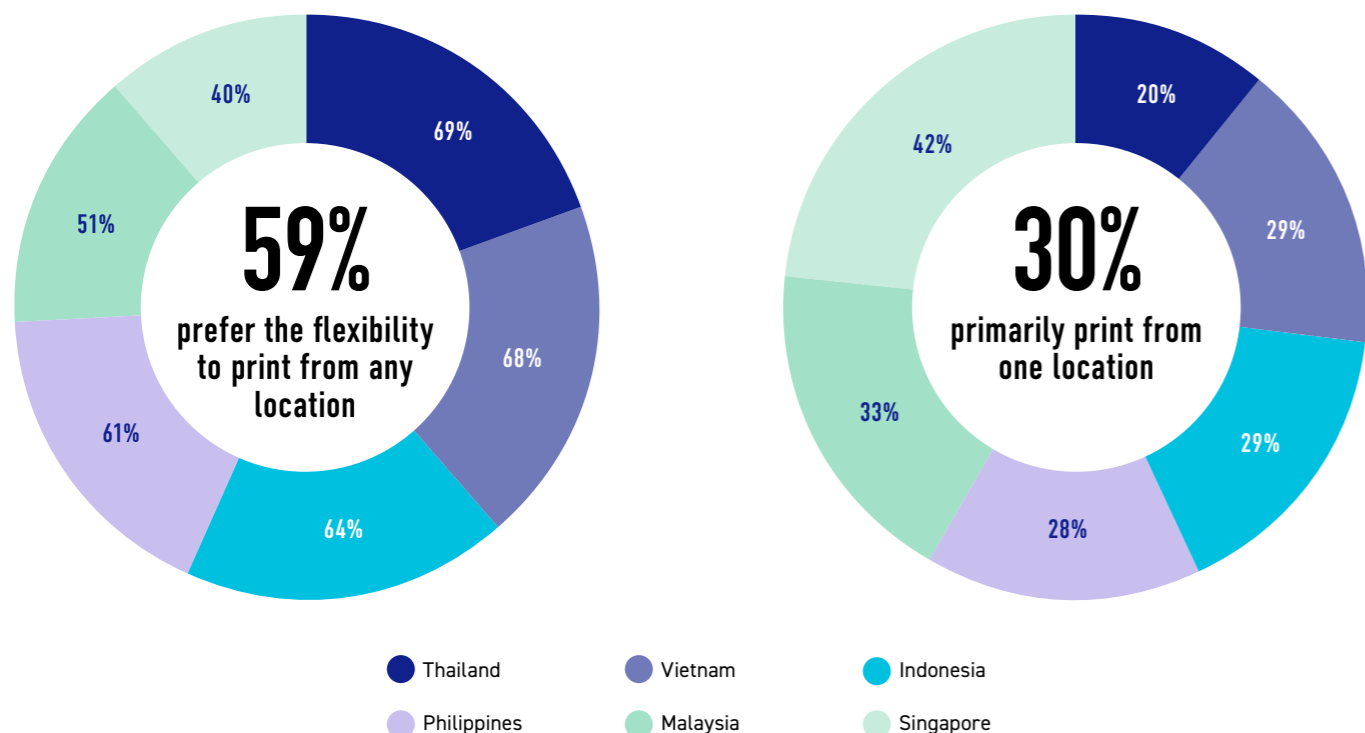


Across Southeast Asia, 40% of survey respondents use printers on a daily basis, and 30% use it between 2-6 times a week. Of all markets, Vietnam had the highest propensity for print (48%), followed by the Philippines and Indonesia (45%). Singapore stands at the other end of the spectrum, with 25% using printers on a daily basis.

However, among employees working remotely, there is a growing demand for cloud-based printing and flexibility. Importantly, as more people use multiple mobile devices to print there is a need to support cloud-based printing needs – although there are wide disparities across the region. Thailand and Vietnam have the highest demand for flexibility, while Singapore has the lowest and people are most likely to primarily print from one location.

The rise of cloud-based printing

Employees' responses to digitalisation and their desire to print is not uniform across all markets and age groups. It's important for organisations to address hybrid workers' print requirements and expectations, including the need for flexibility, cost effectiveness and convenience.



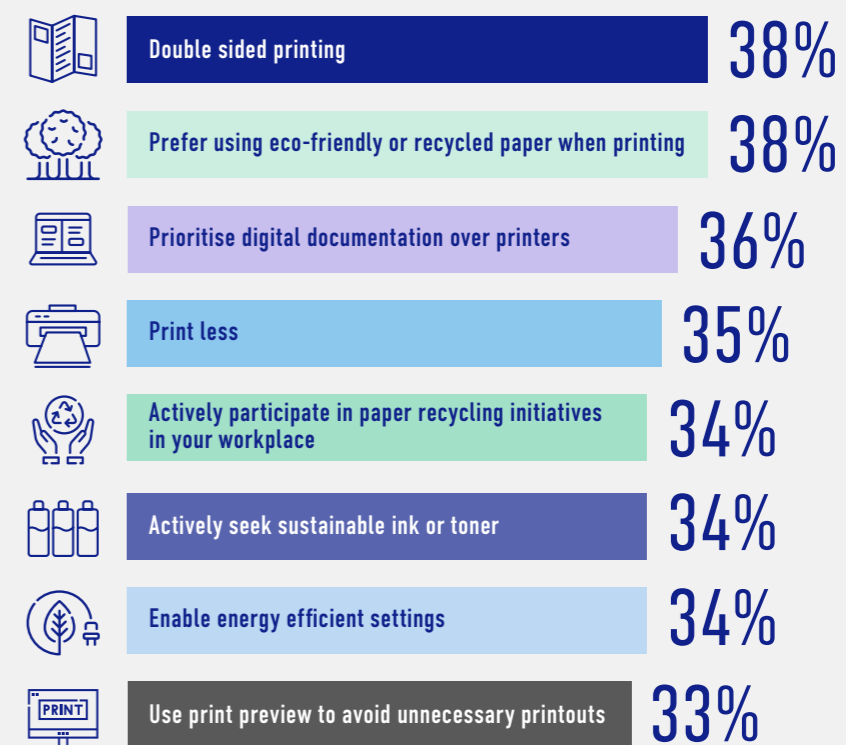
The rise of environmental awareness and its impact on print choices

Amid soaring temperatures and rising sea levels, Southeast Asians are showing greater environmental awareness and demanding more of their print solutions.

93% have some level of awareness of the environmental impact of printing

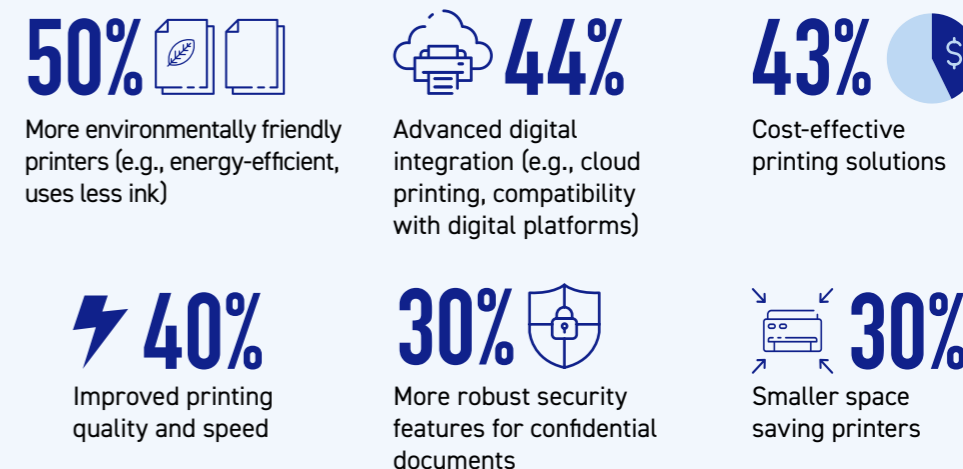
This awareness is translating into good intentions and smarter choices. 39% of workers frequently make the effort to reduce their printing. These steps include double sided printing, using eco-friendly or recycled paper, and prioritising digital documentation.

Steps taken to minimise environmental impact from printing



Aligned to this, people are also demanding changes in their workplace printing solutions, including more environmentally friendly printers, greater user-friendliness and accessibility, and advanced digital integration.

Changes in workplace printing solutions



Tackling Climate Change:

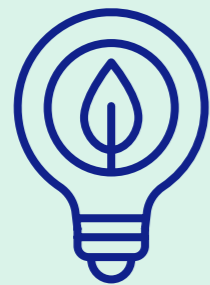
INVESTMENT IN TECH IS ONE OF THE BEST THINGS BUSINESSES CAN DO



Jester Cruz
Senior Regional Manager
for Corporate Products,
Epson Southeast Asia

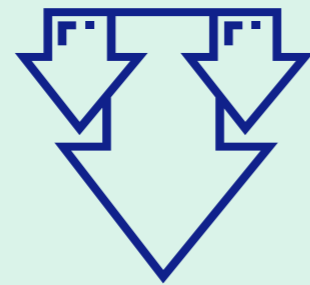
For the last three years, we have commissioned the **Climate Reality Barometer** research, which captures the views of over 30,000 people in 39 countries to gain a better understanding of global responses to climate change.

When asked what they believed was the most important thing businesses could do to tackle the issues;



48%

cited environmental technologies



45%

cited using fewer resources

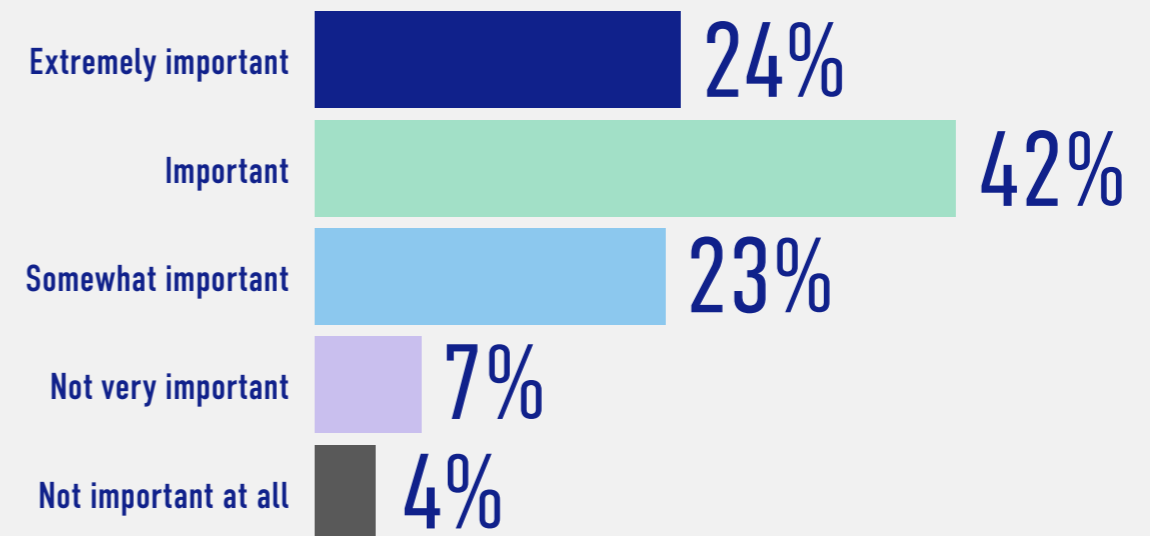
Results reveal that more people now cite climate change as a major global issue more than any other – and that technology is seen as a key enabler in solving the crisis. We believe that listening to the people will help governments, communities and companies better align to take positive action.

For 66% of respondents, sustainability is an extremely important or important factor in choosing a printer. Only 11% didn't consider it important enough to influence their decisions.

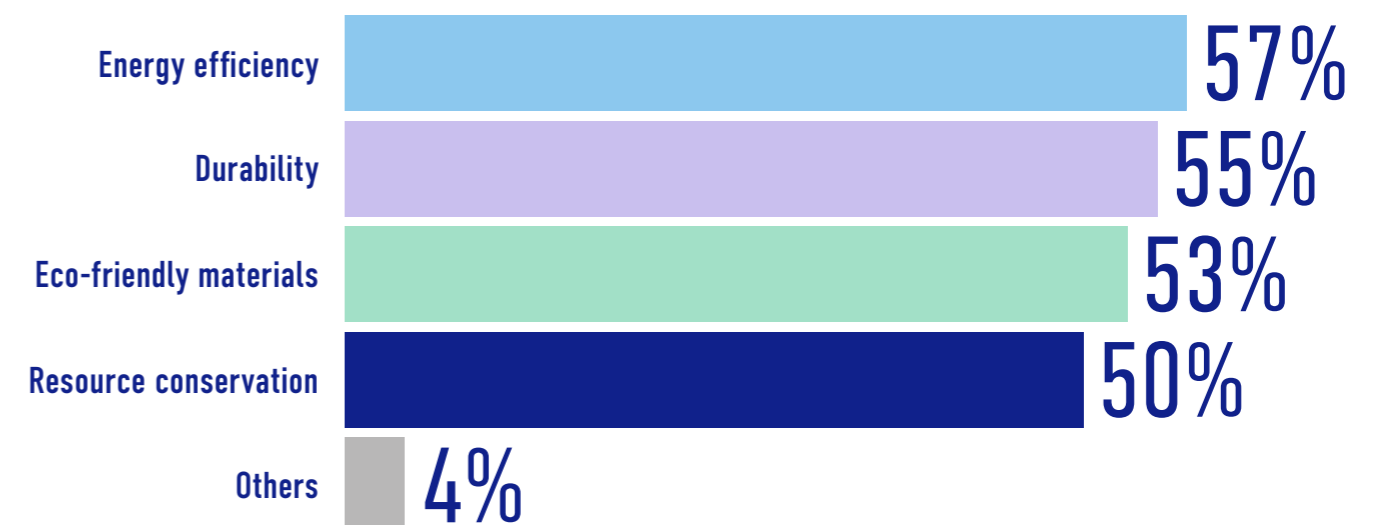
There are some regional disparities in these findings, with Vietnam showing the highest inclination (76% – 'important' to 'very important') to make printer choices based on environmental sustainability. On the other hand, Singapore showed the lowest likelihood to choose printers based on their environmental sustainability (52%).

Probed about what environmental features they consider important, 57% of respondents cited energy efficiency and minimising power consumption during printing, followed by durability (55%), eco-friendly materials (53%) and resource conservation (50%).

If you need to print for work, how important is environmental sustainability to you when using/choosing a printer?



When considering printing technology, which factors are most important to you in promoting sustainability?

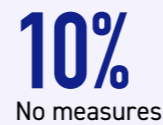
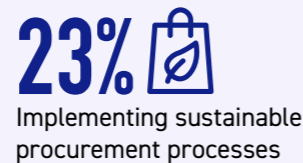
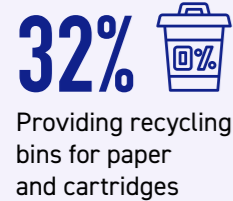
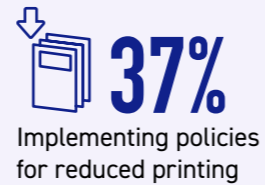
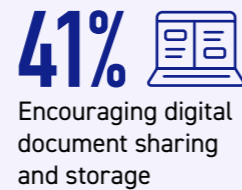


44% of companies have implemented policies for using eco-friendly printers

In response to greater demand for sustainable solutions, companies are starting to integrate and implement new policies – whether for using eco-friendly printers, or actively encouraging digital document sharing and storage (41%).

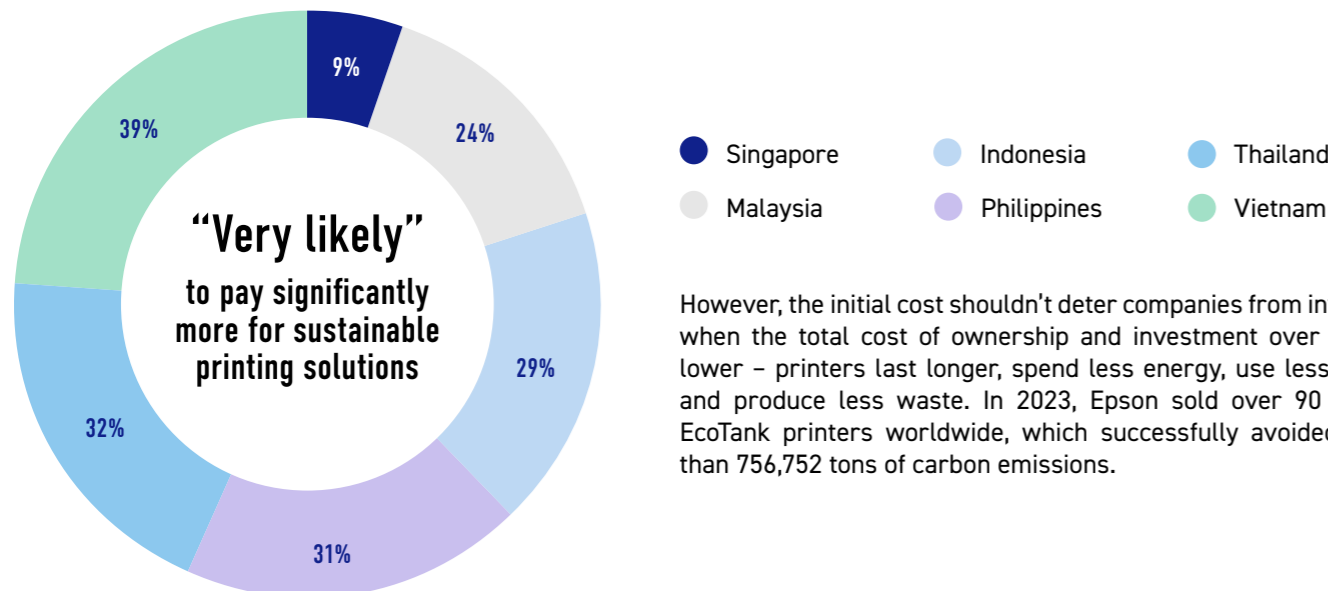
In another indicator of increased environmental consciousness, 53% of survey respondents said they would be willing to switch from laser to inkjet printers to reduce their impact on the environment.

Promoting sustainable printing at the workplace



Reluctance to pay for sustainable features

There is a perception that the cost is high for sustainable technology, with just 27% of respondents saying they are willing to pay significantly more for sustainability. This was especially so in Singapore (9%), compared to markets like Vietnam (39%), Thailand (32%) and the Philippines (31%).



However, the initial cost shouldn't deter companies from investing when the total cost of ownership and investment over time is lower – printers last longer, spend less energy, use less power and produce less waste. In 2023, Epson sold over 90 million EcoTank printers worldwide, which successfully avoided more than 756,752 tons of carbon emissions.

Epson's sustainable technologies

Sustainable printing has an exciting future, especially as organisations continue to embrace innovative technology and materials that go beyond the imagination.

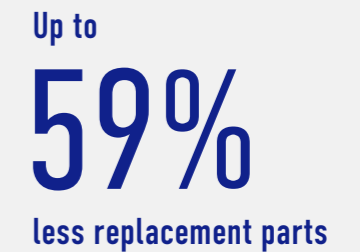
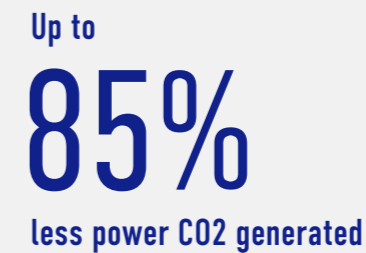
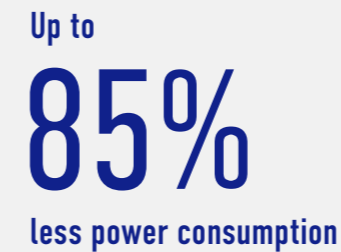
Chosen carefully, printers can reduce energy consumption and improve outcomes in many ways. Epson's Heat-Free technology offers clear environmental benefits compared to traditional printing. By eliminating the need for heat in the ink injection process, it effectively reduces power usage and minimises the associated environmental impact.

Another ground-breaking advancement is Epson's PaperLab. This innovative system enables businesses to recycle used paper and produce new paper in the office through a virtually dry process. In addition to securely destroying sensitive information, PaperLab actively contributes to environmental conservation by promoting recycling practices and resource conservation.



“In Southeast Asia, we have observed significant trends that have shaped the business landscape and influenced customer preferences towards sustainability. Rising to these challenges offers further opportunities for innovation and to create impactful change.”

SIEW JIN KIAT
Regional Managing Director at Epson Southeast Asia and Executive Officer at Seiko Epson Corporation



85% less power consumption

Testing was commissioned by Epson and conducted by Keypoint Intelligence. One specific model was selected from color laser multi-function printers in the 65-70ppm class. Epson WorkForce Enterprise WF-C21000 with 100ppm (equivalent model in Europe was used during the evaluation). This data is as of September, 2020. Devices were tested in default mode as per Keypoint Intelligence's proprietary standard energy consumption test methods. Calculations were based on a weekday workload of 2 x 4 hours printing + 16 hours in sleep/standby mode, and weekend energy use of 48 hours in sleep/standby mode. A total of 69 pages of workload test pattern using DOC, XLS, PPT, HTML, PDF files and Outlook email messages were printed six times in each 4-hour printing period.

85% less CO2 generated

Annual CO2 output calculations were based on JEMAI-LCA Pro, Cedar tree CO2 absorption calculations were based on Japan Forestry Agency standards of 8.8kg CO2 per annum per tree.

59% less replacement parts

Testing was commissioned by Epson and conducted by Keypoint Intelligence. One competitor model was selected from worldwide best-selling vendor* in the 65ppm and 70ppm colour laser multi-function printer. Epson Work Force Enterprise WF-C20600 with 60ppm (equivalent model in Europe was used during the evaluation). Consumables and periodic replacement parts required to print 1M pages. The weight includes all used consumables, periodical replacement parts and their packaging. Test printed pattern used was ISO24712.



CASE STUDY BODINDECHA

In response to Thailand experiencing more frequent and intense natural disasters – which have been attributed to the effects of climate change – the Thai government has pledged to reduce greenhouse gas emissions by 30-40% by 2030 in line with the Paris Agreement.

The Bodindecha (Sing Singhaseni) School in Bangkok is a key example of how the education sector can be a powerful player in addressing climate change. Priding themselves on instilling sustainability values into their curriculum whilst actively reducing their carbon footprint, the school has invested in the usage of Epson's WorkForce Enterprise WF-C21000 printer.

With a lower environmental impact than traditional laser printers – reducing energy usage by up to 85% – Epson's Heat-Free business inkjet printers are aligned with the school's sustainability goals. The printer's high ink yield minimises consumables and reduces waste, helping the school to set an example for other educational institutions, and emphasising the importance of environmental responsibility and empowering the wider community.



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30-40%

by 2030, in line with the Paris Agreement.

CASE STUDY DAIKIN

Situated on a large premise at the Daikin corporate office in Singapore, employees often had to travel up and down the building to print materials. In response to this – and security concerns with a previous vendor operating on an unsecured cloud – Daikin elected to work with Epson to connect multiple WorkForce Enterprise AM-C4000 printers across the business for a curated print solution.

With the printers sharing the same server, this new fleet of printers now allows staff to better access any printer within the building, saving time and making daily tasks easier. With security at the top of mind, the Epson Print Admin (EPA) incorporates security features such as IP address filters, confidential printing with PIN requirements, access control, and an admin panel to prevent unauthorised users from changing the printer settings. These functions work alongside a secured cloud solution to provide full security coverage for Daikin.

As more offices move towards improving sustainability, these Business Inkjet Printers have been made with the modern office in mind – fast performance, low energy consumption, and the ability to build each device to the exact requirements needed for each individual workplace.



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CONCLUSION:

Eco-efficient technology is good for the environment and for business

While there are still barriers to some organisations' paths to sustainability across Southeast Asia, the printer industry is poised for transformation.

Our survey clearly shows that while printing behaviours have evolved with hybrid working arrangements and digitalisation, it's still considered a crucial part of the workplace – and is often used on a daily basis.

For businesses looking to embark on their sustainability journey, here are a few things to consider:



Take stock of your workforce and their habits

Your journey to sustainability needs to align with the behaviours and expectations of your workforce. Our survey found a strong link between hybrid working arrangements and age demographics – while older employees are more likely to work in the office, younger groups demonstrate a desire for hybrid or remote setups.

These behaviours should urge businesses to consider the cloud. Given that 59% of respondents prefer the flexibility to print from any location, offering cloud-based printing should be a key requirement for organisations looking to improve flexibility, cost effectiveness and convenience.



Communicate the benefit of sustainable printing

While 66% of respondents said sustainability is an important factor in choosing a printer, less than one third (27%) said they're willing to pay more for more sustainable measures, leaving a wide gap for inaction. People consider energy efficiency and minimising power consumption to be of the greatest importance – but it's also imperative to showcase how these environmental benefits translate to dollars and cents.

The future relies on sustainable technologies – and it looks promising. There is a clear awareness and desire across the region to take action, and Epson is helping to lead by showcasing how sustainability is a foundational element of responsible business practices.

ABOUT EPSON

Epson is a global technology leader whose philosophy of efficient, compact and precise innovation enriches lives and helps create a better world. The company is focused on solving societal issues through innovations in home and office printing, commercial and industrial printing, manufacturing, visual and lifestyle. Epson's goal is to become carbon negative and eliminate use of exhaustible underground resources such as oil and metal by 2050. Led by the Japan-based Seiko Epson Corporation, the worldwide Epson Group generates annual sales of more than JPY 1 trillion. Visit corporate.epson/en/ for more information

ABOUT EPSON SINGAPORE

Since 1982, Epson has developed a strong presence across major markets in Southeast Asia and South Asia. Led by the regional headquarters Epson Singapore, Epson's business in Southeast Asia spans an extensive network of 11 countries with a comprehensive infrastructure of close to 500 service outlets, 6 manufacturing facilities and 6 Epson solution centres. Visit: <http://www.epson.com.sg> for more information.

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