

# Unleashing the Potential of Ruggedized Mobile Devices: An Asia Pacific Perspective

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# Introduction

This report provides valuable insights into how companies in Asia Pacific are leveraging rugged mobile devices to support their digital transformation activities, business operations, and workplace strategies.

The report highlights:

1. The importance of mobile devices in supporting successful digital transformation and flexible work practices.
2. The common problems organisations experience with consumer-grade mobile devices, the frequency of damaged or broken devices and the subsequent costs.
3. The adoption of rugged mobile devices and the benefits businesses have experienced .

The report showcases the adoption of ruggedized mobile devices by companies in Asia Pacific and the benefits they have experienced, including improved productivity, reduced downtime, and lower total cost of ownership. The survey data in this report is based on responses from 1,440 companies in Asia Pacific, providing a comprehensive view of the region's mobile device landscape.

The report also includes insights from four key industries:

- Financial services
- Healthcare
- Mining & natural resources
- Retail & wholesale trade

These industries were selected based on their scale, economic contribution, and societal impact within the region. The industry-specific highlights provide deeper insights into the challenges faced by companies in each sector and how ruggedized mobile devices have helped them overcome these challenges.

Overall, this report is a must-read for companies in Asia Pacific that are planning to embark on digital transformation initiatives or seeking to improve their business operations and workplace strategies with mobile devices. The report provides actionable insights and best practices for adopting ruggedized mobile devices and achieving a successful digital transformation.

# Asia-Pacific Businesses Embrace Digital Transformation, but Maturity Levels Lag Behind

The COVID-19 pandemic accelerated the pace of digital transformation of many businesses in Asia Pacific.

Traditionally, the business 'frontline' was clearly defined and, in many cases, physically located. Employees served customers and constituents from locations such as government centres, offices, warehouses, medical centres, banks, shops, large call centre operations, etc.

Today, the front line is digital and dynamic.

As a result,

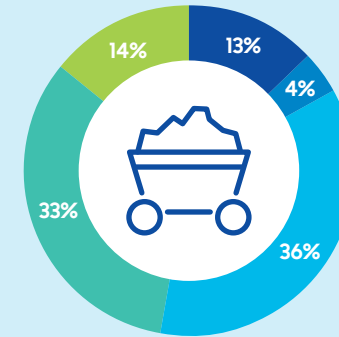
**95%** of the surveyed companies have implemented or are in the process of implementing a digital transformation strategy to support the new dynamic work environment.

While adoption of digital transformation programmes is high, maturity levels are mixed. On a scale of low maturity ('business as usual') to very high ('optimised'), none of the highlighted industries have achieved widespread optimal digital transformation maturity, with less than 20% of them at that level.

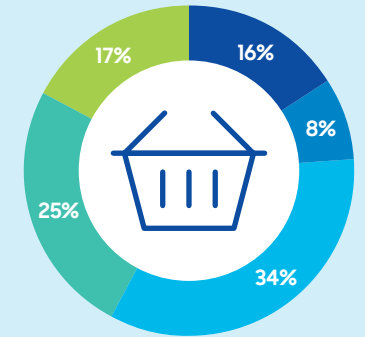
The healthcare industry has achieved the highest level of optimized maturity at 19%, while the retail and wholesale sector closely follows with 17%, both of which surpass the survey sample average of 16%.

The healthcare industry's success may be attributed to the rapid adoption of telemedicine and remote patient monitoring technologies that have significantly improved patient outcomes. In contrast, the retail and wholesale sector has capitalized on e-commerce platforms, mobile apps, and digital supply chain management systems to cater to the pandemic-driven increase in online shopping. These industries have been able to leverage digital transformation tools and technologies, which has resulted in their high level of optimized maturity.

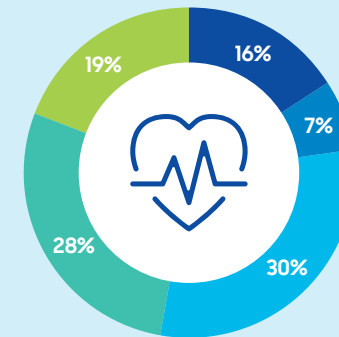
## Digital Transformation Maturity Levels



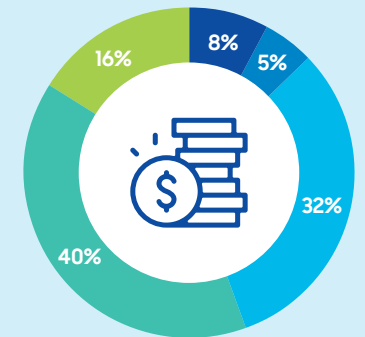
Natural Resources



Retail & Wholesale Trade



Healthcare



Finance

■ Business as usual ■ Reactive ■ Active  
■ Advancing ■ Optimised

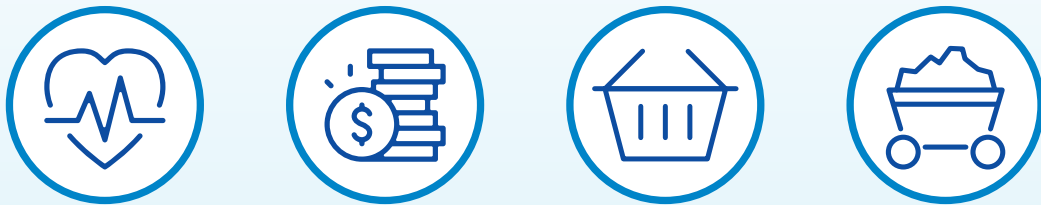


# Successful digital transformation and flexible work practices need strong mobility plays

During the COVID-19 pandemic, the significance of enterprise mobility, collaboration platforms such as Office 365+Teams, and security solutions increased as organizations supported remote working for their employees.

Now, with the COVID-19 restrictions removed, many companies continue with a hybrid workplace model giving employees flexibility around work locations and hours (at least for part of the week).

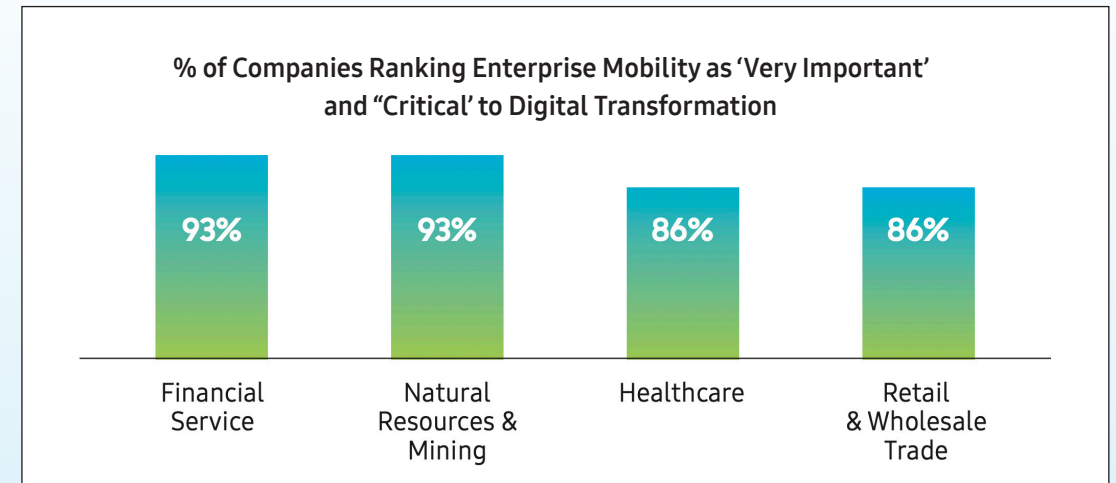
Our data shows on average **95%** of Asia Pacific organisations will continue with a flexible workplace strategy, with our 4 industries also showing high levels of ongoing adoption:



In support of a flexible workplace, **89%** of survey respondents rated enterprise mobility as critical.

Companies with higher levels of digital transformation maturity tend to consider enterprise mobility as more important to their business operations than those with lower maturity levels.

As businesses become more familiar with flexible work practices and progress towards higher digital maturity, the focus shifts from establishing the infrastructure environment (such as deploying cloud solutions) to the optimal delivery of solutions, applications, and data to the endpoint level. This shift in focus is driven by the need to ensure seamless access to information and tools for employees in remote or hybrid work environments.



# From Security to Compliance: The Mobile Device Issues Plaguing Businesses Today

Even across different sectors the common mobile device problems are remarkably similar, reinforcing our view of 'right device for the right role' as an important consideration.

Businesses have highlighted top three common pain points that significantly impact their operations. These include:

**Device security:** Poorly secured devices, especially those not up to date with security patches, are a security and compliance concern for many businesses. Effective device and application management platforms are of critical importance, as too are user access management and protection.

**Additional Hardware and Accessories:** Modern mobile devices are expected to have multi-functional capabilities, such as barcode scanning or mobile payment (MPOS) solutions. However, older or traditional ruggedized devices may lack this functionality,

requiring the purchase of additional hardware and accessories.

**Data compliance:** The need for compliance with data and customer requirements is essential, particularly with the increasing number of data and customer interactions occurring at mobile device endpoints. Sub-par compliance and security environments can limit the deployment and usage of key applications.

Older devices that are unable to run modern applications, a lack of familiarity with a device's operating software and the subsequent time taken to train users to an acceptable level are also cited as common problems.



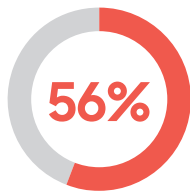
Common Mobile Device Problems	Financial Services	Healthcare	Retail & Wholesale Trade	Mining & Natural Resources
1	Device security	Device security	Device security	Device security
2	Data compliance	Training	Devices need extra hardware or accessories	Devices need extra hardware or accessories
3	Devices need extra hardware or accessories	Devices need extra hardware or accessories	Training	Data compliance
4	Device breakages	Data compliance	Data compliance	Training
5	Training	User acceptance	Devices too old to run apps	Devices too old to run apps

# The wrong device in the wrong place will cause employee downtime.

Our research showed that using the wrong device at the wrong time causes problems. In fact, **1 in 8 companies experienced damage rates for consumer grade mobile devices 50% higher** than ruggedized devices and:



of companies need to routinely repair consumer mobile devices and **47%** experience device failures that necessitate replacement.



of companies damage consumer mobile devices at least **30% more** than ruggedized mobile devices, and

In fact, analysing the data in more detail showed our four sectors experienced a high level of problems with using consumer devices instead of ruggedized mobile devices in their business operations:

When devices fail or need to be repaired or replaced, employees are unable to carry out their tasks, resulting in lost time and missed deadlines. Additionally, having to repair or replace devices can be costly for the business, negatively impacting the bottom line. By matching devices to business environments, companies can reduce device failures and damage rates, resulting in less employee downtime and increased productivity. Investing in the right tools can ultimately help businesses save time, money, and improve employee satisfaction.



	Financial Services	Healthcare	Retail & Wholesale Trade	Mining & Natural Resources
% of companies experiencing failures/breakages with consumer devices	89%	91%	91%	85%
Number of days lost due to employee downtime	4.7	5.3	4.4	4.0



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# Use of ruggedized mobile devices has surged between 2020 and 2022

Consumer grade mobile devices have become ubiquitous in our daily lives, with their sleek designs and portability. However, when it comes to use in business environments, they may not be the ideal choice. These industries require robust and durable devices that can withstand harsh environments, while also delivering superior performance and ease of use.

As a result of this, we have seen the increase in adoption of ruggedized devices in these industries between 2020 and 2022, increasing from an average of 48% to 81%.\*

**Financial Services:** Seen a 35% increase between 2020 and 2022 as, for example, banks equipped service representatives with ruggedized mobile devices to support customer 'at home' banking visits to complete loan applications.

**Healthcare:** Experienced a 21% increase in device deployments. For example, healthcare clinics and hospitals focused digital delivery and recording of patient information via nurses equipped with ruggedized tablets.

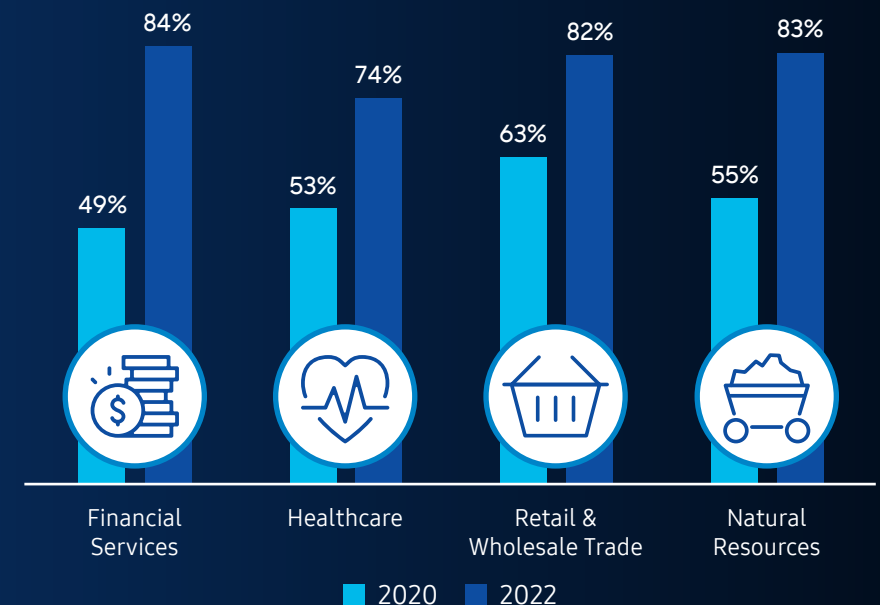
**Retail:** saw a 19% increase in adoption as shops, supermarkets and other physical outlets integrated digital customer service, ordering/stock information and customer information.

**Mining and Natural Resources:** This sector continued to show strong adoption, increasing by 28% as devices were used areas such as healthcare and safety, preventative maintenance, machinery operations and real-time on-site operations data analysis.

\*Whilst we're not stating that 100% of employees in the 81% of companies are using ruggedized devices, the data confirms significant growth in usage by employees within these organisations.



Percentage of companies using ruggedized mobile devices as part of its operations, 2020 and 2022



Source: TRA "Ruggedized Smartphones & Tablets in Asia Pacific – Enterprise Adoption, Use Cases and Benefits 2023"

# Ruggedized Devices in Action: How Industries are Using Purpose-Built Technology to Improve Productivity

Easier to use, aesthetically pleasing ruggedized mobile devices have been adopted in multiple areas over and above 'traditional' use cases including:



## Retail

A retail group with customer-facing staff using ruggedized devices integrated with customer loyalty programmes, logistics operations and mobile payment solutions.



## Healthcare

An international diagnostic imaging solutions company that uses artificial intelligence eye monitoring, screening and predictive technology in multiple countries on ruggedized devices to bring low-cost, timely consultations to patients.



## Banking

A national banking group using ruggedized devices to create a highly mobilised 'branch of the future'



## Mining

A mining group using push to talk (PTT) enabled ruggedized devices combined with voice-automated, activated safety checklists.



# Ruggedized mobile device benefits are more than just improved employee uptime

As we have seen from the data, consumer grade mobile devices can cause problems and employee downtime when they fail, requiring repairs or replacement.

In comparison we looked at the positive impact businesses experienced after adopting ruggedized mobile devices. Companies told us that the benefits are clear and encompass increased employee productivity, sales, customer service and operational efficiencies including:



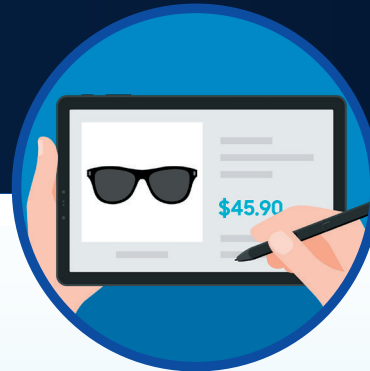
## Workforce Productivity

**29%**

increase in overall workforce productivity

**23%**

reduction in employee downtime



## Sales and Customer Service

**56%**

decrease in customer service costs

**50%**

increase in order processing efficiency

**25%**

reduction in customer wait times



## Field/Remote Work Operations

**35%**

increase in productivity

**30%**

reduction in data entry errors



Source: TRA "Ruggedized Smartphones & Tablets in Asia Pacific – Enterprise Adoption, Use Cases and Benefits 2023"

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# Should you consider ruggedized mobile devices for your business?

Yes.

If your business or organisation has adopted, or is about to adopt, a digital transformation strategy, the research shows enterprise mobility is a key contributor to success, especially for where successful, mature transformation programmes are in place.

No longer a secondary consideration, ruggedized mobile devices should be considered as an important 'end-point' device for your business.

Our research tells us that **82% of companies surveyed have a hybrid work strategy in place** and another 13% are deploying one in the coming 12 months. These initiatives are transforming their

work practices to be more digital, more location flexible and less on-premises technology dependent.

Getting the device strategy wrong can be costly involving problems with service delivery, sub-standard customer care, slower revenue recognition and the financial cost of lost employee productivity.

As market and societal changes have brought about dramatic change, the barriers frontline workers face can be overcome through ruggedized mobile devices. This applies both for traditional users of these devices as well as other roles such as office and information workers, improving productivity, customer satisfaction and service delivery.

## 7 things to ponder when formulating your mobility strategy



### Purpose-built devices

Businesses should look for devices that are specifically designed for their industry and offer features that cater to their specific needs.



### Durability

In industries where devices are exposed to harsh environments, ruggedness and durability become essential factors to consider.



### Security

Ensuring device and data security should be a top priority for businesses, particularly in industries that deal with sensitive customer or patient information.



### Battery life

In industries where employees are working long hours or in remote locations, battery life becomes an important consideration for uninterrupted operations.



### Ease of use

Mobile devices should be user-friendly, with intuitive interfaces and ergonomic designs that help employees work efficiently and comfortably.



### Connectivity

In industries where employees work remotely or in the field, reliable connectivity is crucial for real-time access to information and data.

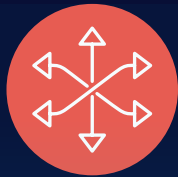


### Cost-effectiveness

While investing in high-quality devices is important, businesses should also consider their budget and opt for devices that offer a good balance of features and affordability.

# Work opens up with Galaxy

Empowering the workplace of tomorrow, Galaxy opens up new possibilities for businesses, with versatile devices, optimized experiences, and secure protection.



## Versatile

Empowering pros with versatility

### Open up more choice

Devices in various sizes and form factors

Entry to flagship  
Innovative foldables  
Business ruggedized  
Enterprise Edition

### Open up seamless continuity

Seamless work within the Galaxy Ecosystem

Galaxy ecosystem  
Accessory ecosystem  
Galaxy connected experience



## Optimized

Optimized for the way you work

### Open up streamlined productivity

Driving productivity in the workplace

Advanced connectivity  
S Pen features  
Battery and charging

### Open up innovative usability

Enhancing the way you work

Z Fold optimized apps  
PC-like experience  
Frontline solutions



## Secure

Advanced protection and management

### Open up to industry-grade security\*

Designed to give you peace of mind

Built-in security  
Built-in protection

### Open up to effortless management

Built to make IT powerful

Knox Suite  
Knox Validated Program  
Knox Service Plugin



Availability of devices, certain features, and support varies by region. Additional details in following pages.

\* Samsung Knox has successfully met the rigorous security requirements set by governments and major enterprises around the world, providing business users with a robust mobile security solution. <https://www.samsungknox.com/en/knox-platform/knox-certifications>

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# Research Methodology and Demographics

## RESEARCH METHODOLOGY AND DEMOGRAPHICS

To inform the report, TRA undertook a quantitative survey of 1,440 organisations in 8 countries:

-  Australia: 209
-  Indonesia: 187
-  Malaysia: 180
-  New Zealand: 125
-  Philippines: 189
-  Singapore: 183
-  Thailand: 188
-  Vietnam: 179

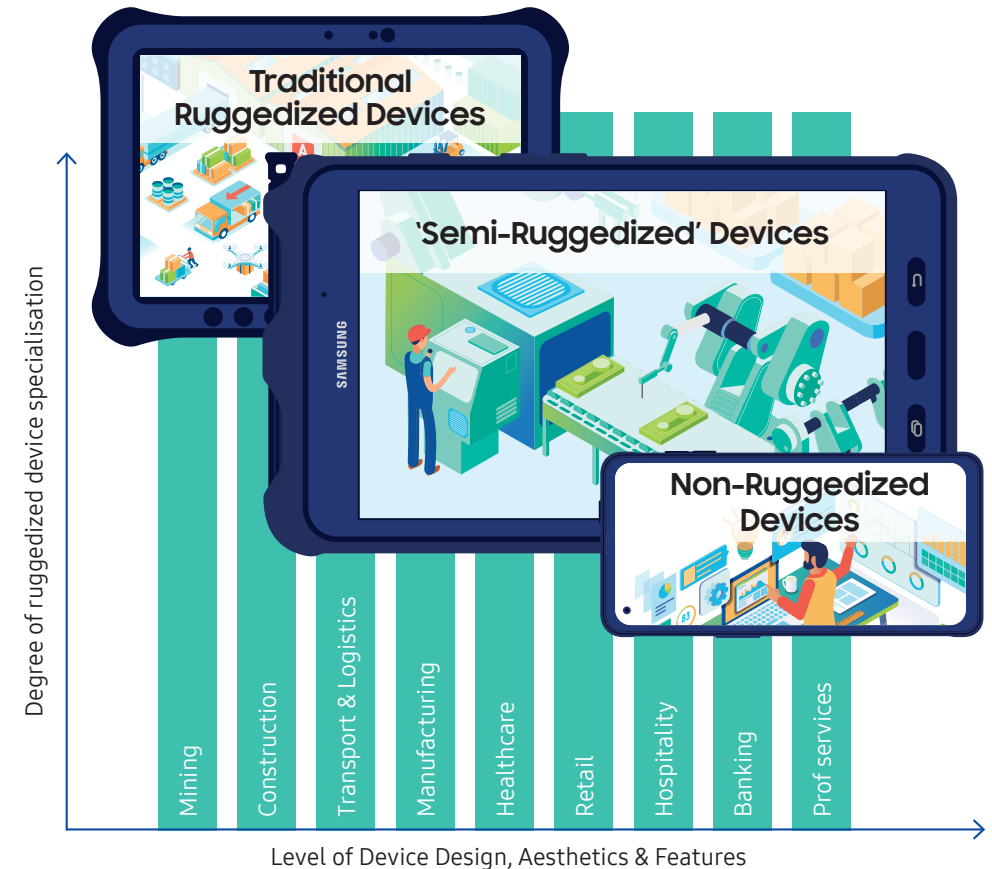
The survey was conducted as an anonymous online panel in September 2022 by an independent third party specialist survey organisation based in Asia. Respondents were drawn from businesses in multiple industry sectors including Government, Financial Services, Healthcare, Education, Retail & Wholesale Trade, Transportation & Logistics, Manufacturing & Natural Resources, Utilities and Communications, Media & Professional Services. To be eligible to participate, respondents were

required to hold Executive or Director level positions with an IT decision maker responsibility or influence.

### Semi-ruggedized and ruggedized

Semi-ruggedized mobile devices blends the familiarity, design and features of consumer smart mobile devices with high-end specialised ruggedized ones incorporating various features such as IP ratings, MIL-SPEC standards, etc.

This semi-ruggedized category reflects the growing deployment of ruggedized devices into new markets. Historically, ruggedized devices, MPOS, PTT and scanning solutions are typically deployed in 'heavy' industries that exhibit harsh environments and difficult conditions – mining, transport, construction, etc. In today's business environment, these ruggedized devices lack a number of features around aesthetics, design, ease of use, weight, multi-application capable, etc that limit their suitability for many businesses seeking a device that is more robust than consumer grade mobile devices.



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