



STATE OF THE NATION SERIES

Delivered to You by:

FUJITSU

ICT in Thailand



Report 2: Workplace/Workstyle Innovation





STATE OF THE NATION

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About the TMS State of the Nation: ICT in Thailand 2019 Report Series

Real Insights from Real ICT and Business Decision Makers

We recognize that business leaders, especially those responsible for ICT decision making, have a difficult job. Budgets are tight, and management demands more accountability and greater ROI from their ICT investments. In addition, ICT professionals need to maintain and improve the current mission critical systems, whilst simultaneously driving Digital Transformation to compete in the market.

Read the Views of ICT Decision Makers in Thailand

To shed light on these challenges we went to the ICT Decision Makers themselves – people like you who can provide real insights grounded in real experience. Technology & Management Services (TMS), an ICT research and advisory firm with a specific focus on Asia/Pacific, surveyed ICT decision makers in Thailand.

After fielding surveys to over 10,000 potential respondents, TMS were able to collect high quality, valid completed responses from 107 ICT Decision makers in Thailand

Balancing Existing Systems and Advancing DX

Unlike many other recent ICT reports about the *digital economy and digital transformation*, this report series also paints a comprehensive picture of the relative strengths and weaknesses of the *current state of ICT implementation and investment* in Thailand.

This is important for ICT decision making as the majority of ICT budgets are spent on '*keeping the lights on*' and maintaining and upgrading existing infrastructure and applications.

ICT Decision Makers Need Clarity

However, the need for *Digital Transformation* is increasing, and ICT decision makers often don't have time to cut through multiple, confusing, conflicting and biased sources of advice. Importantly, to provide some clarity, this report series also provides detailed analyses of the ICT Decision Makers' *Business Strategies and associated ICT Strategies; Staffing and Budget intentions and Sourcing considerations*.

DX Drivers, Challenges and Investment Plans

In addition, the report series covers, *Digital Transformation Drivers, Challenges; and Implementation and Investment directions* for a range of transformation technologies or strategies including: *AI, IOT, Cloud, Cybersecurity, Workplace Innovation, Enterprise Applications*, and related topics.

A Unique Report

We believe this to be the first survey of this scope and size conducted in Thailand. Almost every aspect of current and future ICT plans and issues have been covered. Many questions are related, cross-referenced, and compared. Taken in their totality they build a comprehensive picture of the issues and challenges facing ICT Decision makers in Thailand now and for the next 12 to 18 months.

DX Technology Matrix and Methodology

Complete details of the TMS Digital Transformation Technology Matrix (DXTM) which was used as the framework for development of this research, and the research method and approach are contained at the end of the report.



Foreword

Welcome to the 'TMS State of The Nation: ICT in Thailand 2019' report Series!

This is the second report in the series, and focuses on **Workplace/Workstyle innovation**, and this important aspect of the market through the eyes of the people who actually manage and deliver these technologies – the ICT decision makers.

Workplace/Workstyle Innovation

Massive changes are happening all around us. In the workplace, mobile technologies increasingly mean that for the first time in history we are location independent. We are connected anytime and anywhere.

Smart phones and related devices such as tablets have transformed many people's lives and have been the most quickly adopted technology in human history. They have also enabled many new applications and new ways of working, driving a whole range of initiatives and technologies, often referred to as Workplace or Workstyle Innovation, to improve employee productivity and engagement.

These new ways of working and delivering technology to staff creates a number of challenges.

Fujitsu is Proud to Deliver an Independent Perspective

To shed light on these challenges Fujitsu is proud to deliver to you this independent report on the true state of Workplace/Workstyle Innovation in Thailand. Asia/Pacific based research firm Technology & Management Services (TMS) surveyed 107 Thai ICT decision makers in December 2018 and produced this report.

What this Report Covers.

The report briefly explains what Workplace/Workstyle Innovation actually is, and why it is important. It not only shows the current status of Workplace/Workstyle Innovation in Thailand, but also sheds light on organisation objectives and plans for the next 12 months.

Specific topics covered are:

- Workplace Innovation Implementation vs Investment
- Workplace Innovation Challenges
- Workplace Innovation Progress for Business Operations
- Workplace Innovation Implementation Progress for Specific Applications
- Digital Transformation (DX) Outcomes for Workplace Innovation
- Workplace Innovation Preferred Provider Location

Other reports in the series focus on:

- Key ICT Trends and Digital Transformation
- Cloud & Internet of Things (IOT)
- Cybersecurity
- Artificial Intelligence (AI)
- Enterprise Applications/ERP

Creating appropriate objectives and policies, selecting relevant technologies and finding a capable technology partner for Workstyle Innovation are difficult challenges for today's ICT and business leaders.



I trust that you find the information helpful in understanding what the market is actually doing, what challenges are being experienced by your peers, and what results are being achieved.

**Toshio Miura, Managing Director
Fujitsu Thailand Co., Ltd.**

Executive Overview and Key Findings



Introduction

In December 2018, TMS conducted the first 'State of The Nation: ICT in Thailand 2019' survey. The result was a highly qualified and reliable set of complete responses from 107 ICT decision makers, regarding current ICT status and future plans. Key findings from 'Report 2: Workplace/Workstyle Innovation' follow:

Key Findings:

- Many workplace innovation technologies have already been implemented widely and are set to receive even greater investment in the next 12 months.
- Implementation of virtual desktop is relatively low, however is the focus of significant future investment. End-user productivity applications have been implemented widely, however in conjunction with collaboration and workflow applications, new investment is planned.

- Investment in bring your own devices (BYOD), Desktop PCs and social media policies for non-business use are also set for growth.
- Many respondents stated that they were making progress with programs that were well underway or mature and outcomes delivered in the areas of logistics/warehousing and transport (75.7%), ICT (71%), and finance (67.3%).

- Mobile applications ranked number one with 74.8% of respondents well underway or having significant outcomes delivered.
- Desktop PC implementations came in at 73.8% and Social media for business and smart phones inventory control both had 72% responding.
- 71% of respondents had also progressed well with allowing social media for non-business.
- In terms of DX initiatives had delivered outcomes for Workplace innovation 40.2% indicated that DX initiatives in this area had strengthened competitiveness.
- Transformed business models/processes were achieved by 39.3% of respondents and improved employee satisfaction by 37.4% of respondents.
- In terms of their preferred workplace innovation provider source in terms of geographic location 30.8% preferred a local player, closely followed by a global player at 29.9%. 23.4% preferred a blend of local/regional and global players. With the remainder preferring a local player (9.35%) or no preference at all (6.5%).

Conclusion

ICT Decision makers in Thailand understand the necessity for supporting corporate objectives and increasing staff productivity.

Thai business leaders are embracing the changing business and technology environment by providing policies, budget and technologies to enable staff to work more productively both in the office or remotely. This is especially true of mobile applications.

Although still in the early stages of implementation for many organisations, workplace/workstyle innovation outcomes have been encouraging, especially in terms of increasing competitiveness, transforming business models and improving employee satisfaction.

Workplace Innovation

Digital Transformation has Brought Innovation to The Workplace

Digital technology has transformed the workplace, as it has so much else. The very concept of the workplace has evolved. For an increasing number of people, it is no longer a physical location. Rather, it describes the wider virtual environment enabled by such technology as smartphones, mobile broadband, virtual and augmented reality, collaboration tools and a range of other workplace productivity technologies.



Technology Changed the Way We Work

It is now 40 years since digital technology transformed the back offices of large organizations. It is 30 years since the PC revolution swept through the front office and bought personal productivity tools such as word processors and spreadsheets to all information workers. Just 20 years ago the Internet became a common business tool, and the Apple iPhone ushered in the smart phone revolution 10 years ago.

Each of these waves of technology transformed the workplace. We are now experiencing another revolution, driven by new technologies such as Artificial Intelligence and the cloud-based delivery of personal and workplace productivity tools.

Workplace Innovation

There are many names for this – **Workplace Innovation, Workstyle Innovation, Smart Workplace** and others – and many technologies that work together to make it happen. These include:

- **Collaboration tools:** software that helps individuals in the workplace to work together on projects by sharing applications and data. Collaboration is not a new idea, but the Cloud and artificial intelligence have enabled new ways of working together. At the same time existing personal productivity tools such as Microsoft Office migrated to the Cloud and brought a new dimension to collaboration.
- **Social media:** a consumer technology increasingly being used for workplace productivity. Sophisticated analysis tools, many of them driven by AI techniques, are leveraging social networks as important business tools.
- **Workflow and content management:** another existing workplace application that has been revolutionized by new technology.
- **Mobility:** smart phones, mobile broadband and mobile apps have enabled individuals to work anytime and anywhere.
- **Unified Communications:** the bringing together of different media – voice, data, image, video – into one integrated corporate communication system.

All Industries Benefit

Not everybody is an information worker. New technologies are also transforming workplaces in areas as diverse as manufacturing, transport, energy, utilities and mining. Many of these applications, such as virtual and augmented reality, use a combination of technologies based on AI, the Internet of Things and other innovations. Individuals, the workplace, and the enterprise have never been more connected.

The TMS Technology Hype-Dial: What's Hot and What's Not!

The TMS Technology Hype-Dial

It is often hard to separate myth from reality in the technology industry. Many technologies are talked about so much that the reality of their importance is lost in all of the noise. To help cut through the disinformation, Technology & Management Services (TMS) has developed the TMS Technology Hype-Dial.

Overhyped, Underhyped, Important or Not Important?

As an integral part of our extensive research process, TMS surveys hundreds of ICT decision makers in specific markets. We ask respondents to rate a number of technologies or business trends in terms of whether they believe them to be *overhyped or underhyped*, and whether they are *important or not*.

The Shape of the Dial Indicates the Level of Reality

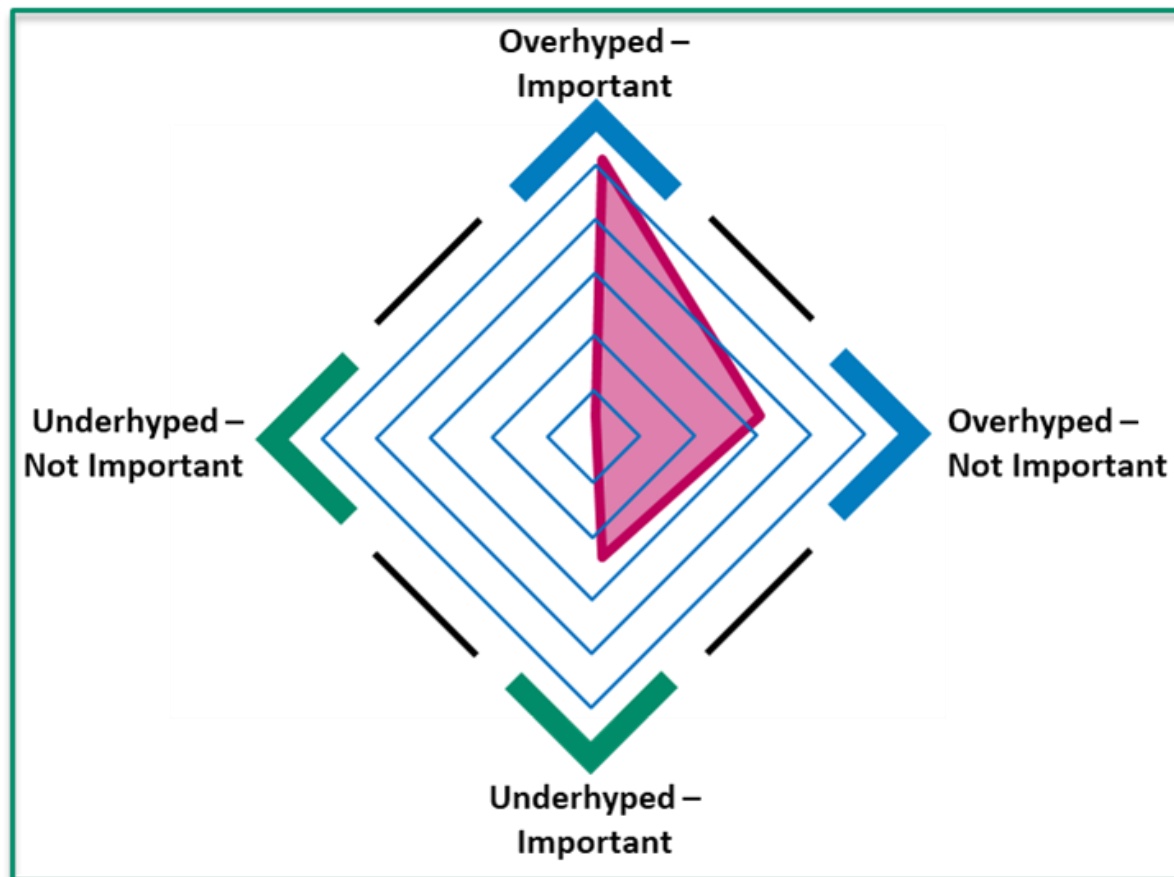
Overall results are analysed and expressed as a four-point radar ("spider") diagram for each technology or trend. ***The thinner the shape the more important*** ICT Decision Makers believe the technology to be. ***The higher the shape the more the technology is believed to be overhyped.***

The Hype-Dial Evaluates Technology Based on Merit

The TMS Technology Hype-Dial allows ICT decision makers to consider or reject a new technology or business trend based on its merits as identified by their peers. ICT decision makers evaluate the benefits of technologies in terms of their enablement of business and ICT objectives, which evolve over time, but which do not change nearly as quickly as technology.

Use Other TMS Tools to Establish Context

The Technology Hype-Dial should be used in conjunction with other TMS tools such as the Implementation & Investment Matric (I²M) and other TMS charts and graphs. This will assist in establishing the context of these technologies against business and ICT objectives, as well as budget and implementation plans and the associated challenges.



Workplace Innovation: Technology Hype-Dials

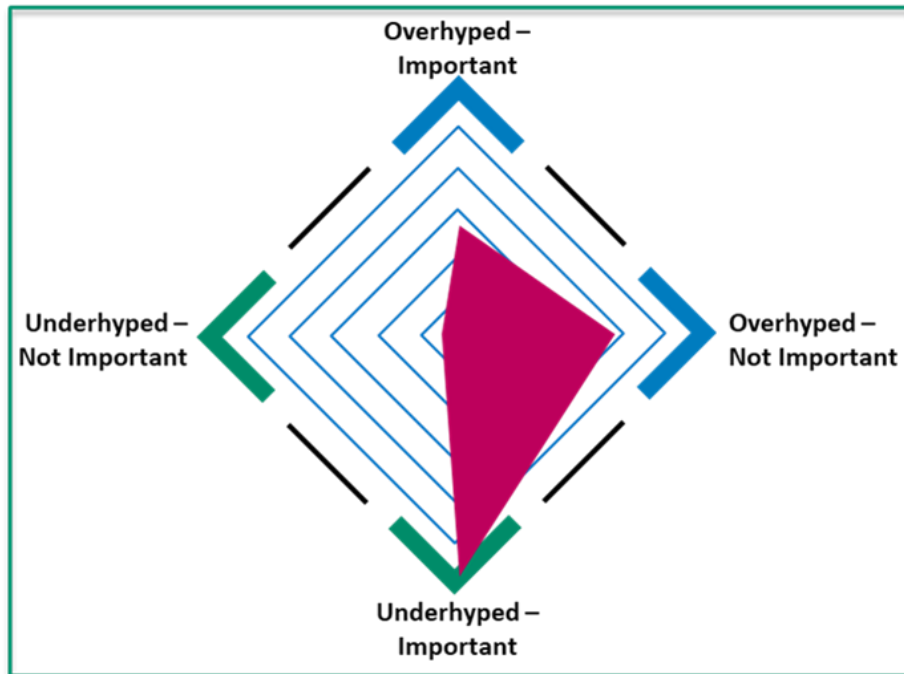
Workplace and Mobility Technology Hype-Dials

These two technologies have been grouped together as they are very strongly related to each other, with mobility solutions being the range of technologies that enables many workplace/workstyle innovation initiatives.

Workplace innovation is viewed as important but highly underhyped by most respondents, however a number believe it is also moderately overhyped and not that important.

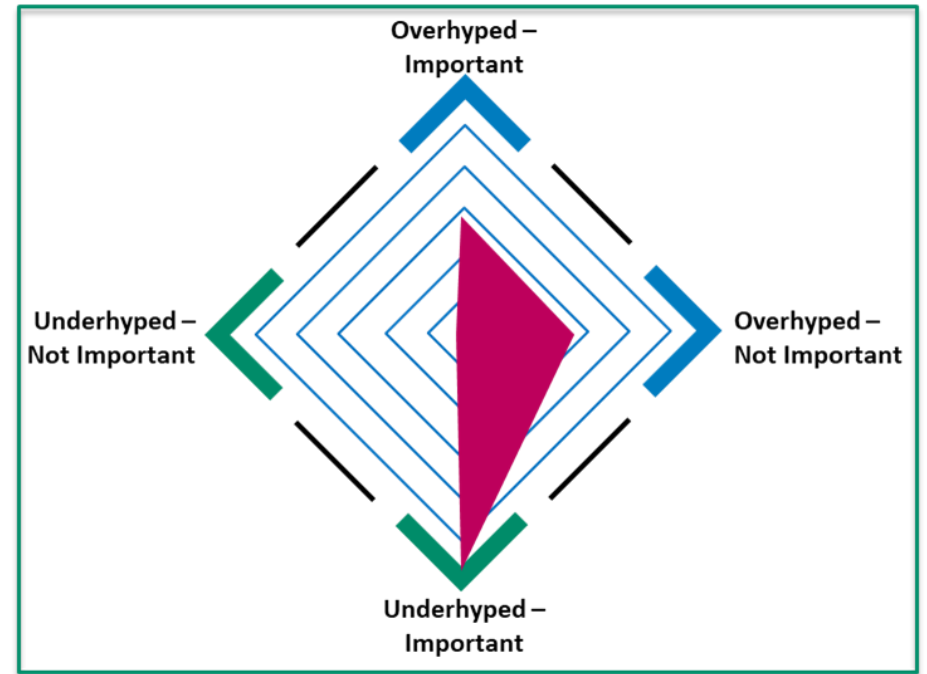
Mobility solutions themselves were viewed as highly important and underhyped, with few respondents stating it was not important.

Workplace Innovation - Thailand



Technology Hype-Dial

Mobility Solutions - Thailand

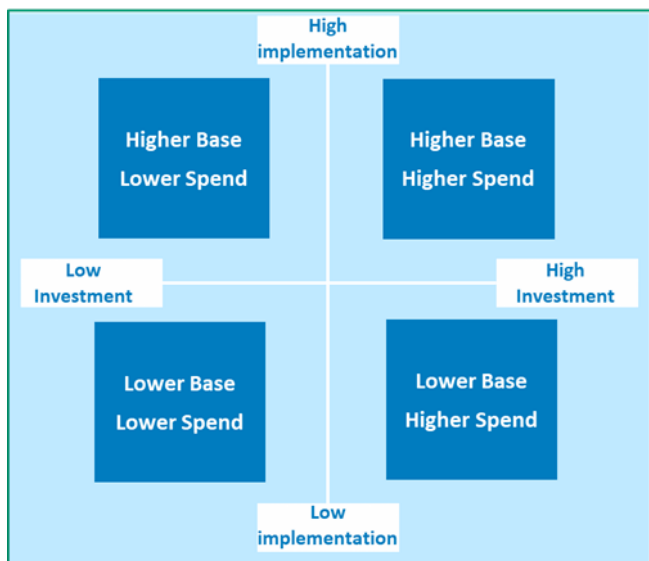


Technology Hype-Dial

The TMS Implementation vs Investment Matrix (I²M) What has Been Implemented and What is Planned?

TMS Implementation vs Investment Matrix (I²M)

When evaluating what technology profile is best for your organization, it is often useful to have information about what other organizations are doing and are planning. To reveal the actual status in your market, Technology & Management Services has developed the TMS Implementation vs Investment Matrix (I²M).



TMS Implementation vs Investment Matrix (I²M)

Directly from ICT Decision Makers

As an integral part of our extensive research process, TMS surveys hundreds of ICT decision makers in specific markets. We ask respondents to indicate the level of **current technology implementation** (from nothing at all to highly mature) and the level of **planned technology investment** (from none-at-all to major investment plans).

Actual vs Planned Technology Use

Overall results are analysed and expressed as a matrix which maps actual implementation (low to high) against planned investment (low to high). The positioning of technologies within the TMS I²M shows their status relative to each other and is not designed to reflect actual market shares.

TMS I²M Enables Comparison in One Place

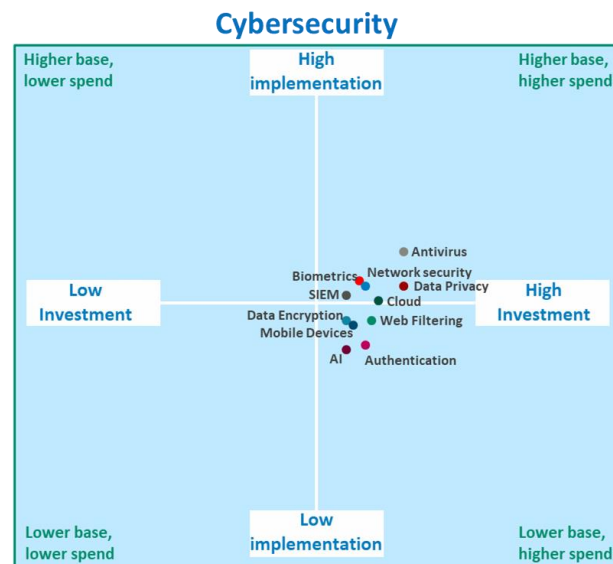
Traditional research analyses often focus on technology market share, market size and forecasts, but this doesn't allow for a useful comparison of the actual organizational level of technology use, or the maturity of organizations' planned technology use. The I²M allows current and planned implementation and investment for clusters of related technologies to be compared on one chart.

Example Chart for Cybersecurity

The example chart for Cybersecurity shown here (not for any specific market), compares the level of implementation of various Cybersecurity related technologies with the level of planned investment.

Use Other TMS Tools to Establish Context

The TMS I²M should be used in conjunction with other TMS tools such as the TMS Hype-Dial and other TMS charts and graphs. This will assist in establishing the context of these technologies against business and ICT objectives, as well as budget and implementation plans and the associated challenges.



TMS Implementation vs Investment Matrix (I²M)

Workplace Innovation: Implementation vs Investment Matrix (I²M)

Workplace Innovation Implementation vs Investment Matrix (I²M)

Many workplace innovation technologies have already been implemented widely and are set to receive even greater investment in the next 12 months.

Implementation of virtual desktop is relatively low, however is the focus of significant future investment.



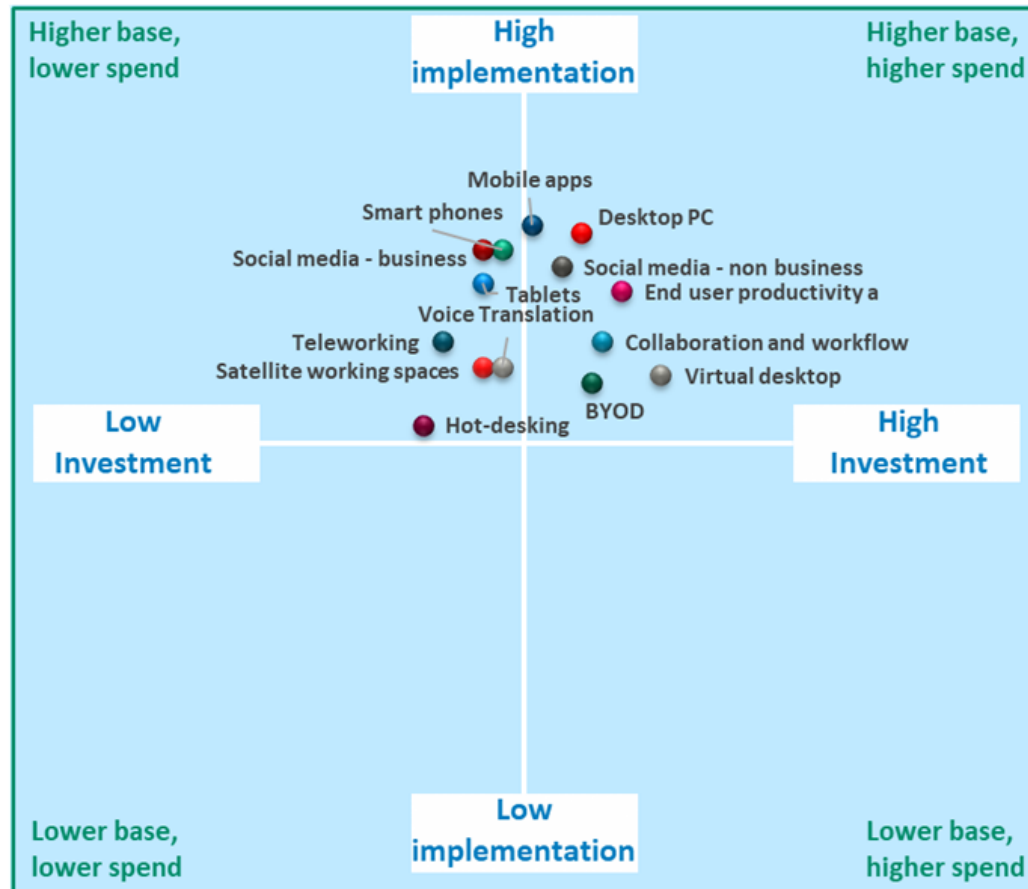
End-user productivity applications have been implemented widely, however in conjunction with collaboration and workflow applications, new investment is planned.

Investment in bring your own devices (BYOD), Desktop PCs and social media policies for non-business use are also set for growth.

Implementation of mobile applications, smart phones, social media for business and tablets is at moderate levels already, and future investment will take a lower priority.

Although seen as key components in many workstyle innovation programs, teleworking and hot desking are not widely spread, and will receive relatively less investment in the next 12 months.

Workplace Innovation - Thailand



TMS Implementation vs Investment Matrix (I²M)

Workplace Innovation: Challenges

Workplace Innovation Challenges

We provided respondents with a list of 22 potential challenges for Workplace Innovation and asked them to rank the level of challenge.

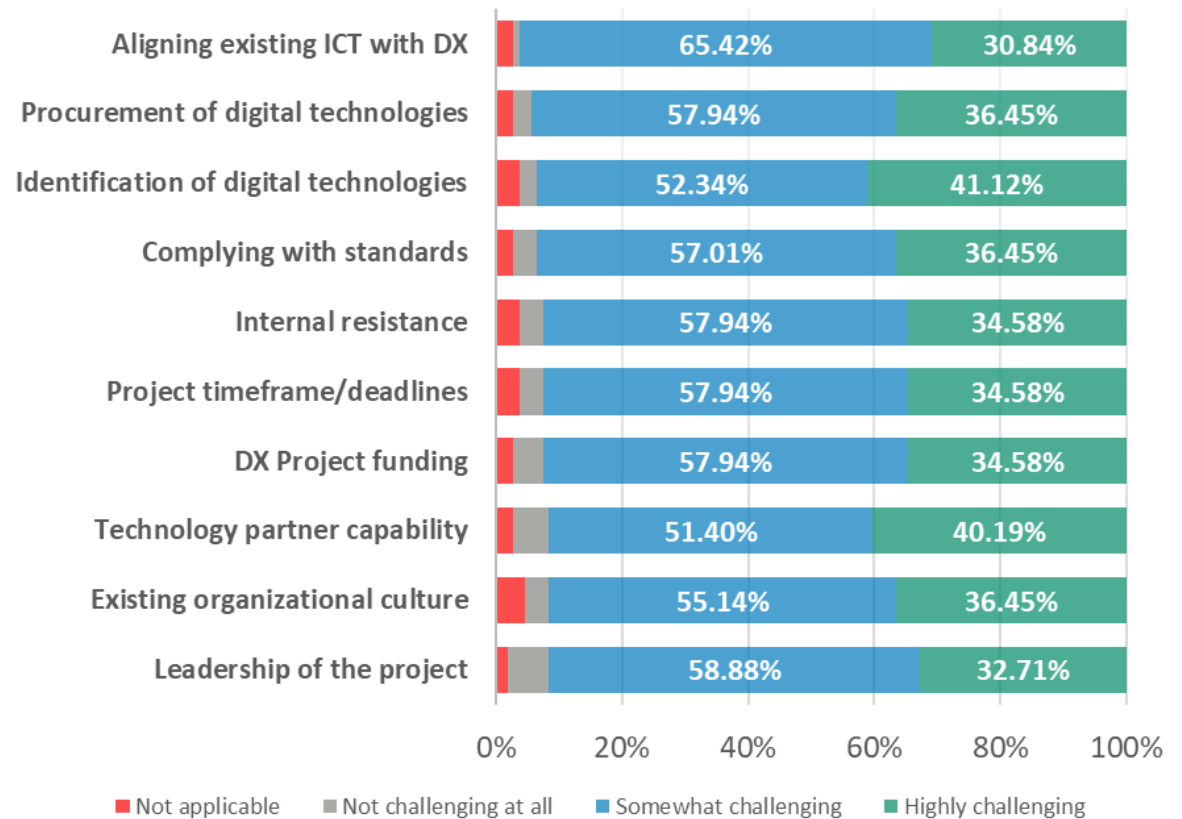
Aligning existing ICT with the needs of DX is highly challenging or significantly challenging for 96.3%. The next challenge for 94.4% of respondents is procurement of digital technologies.

The next 2 challenges (93.5% each) were identification of digital technologies and complying with standards. Followed by internal resistance, project deadlines and DX project funding overall with all at 92.5%.

Identification of digital technologies and technology partner capability are the two most highly challenging individual issues (41.1% and 40.2%).

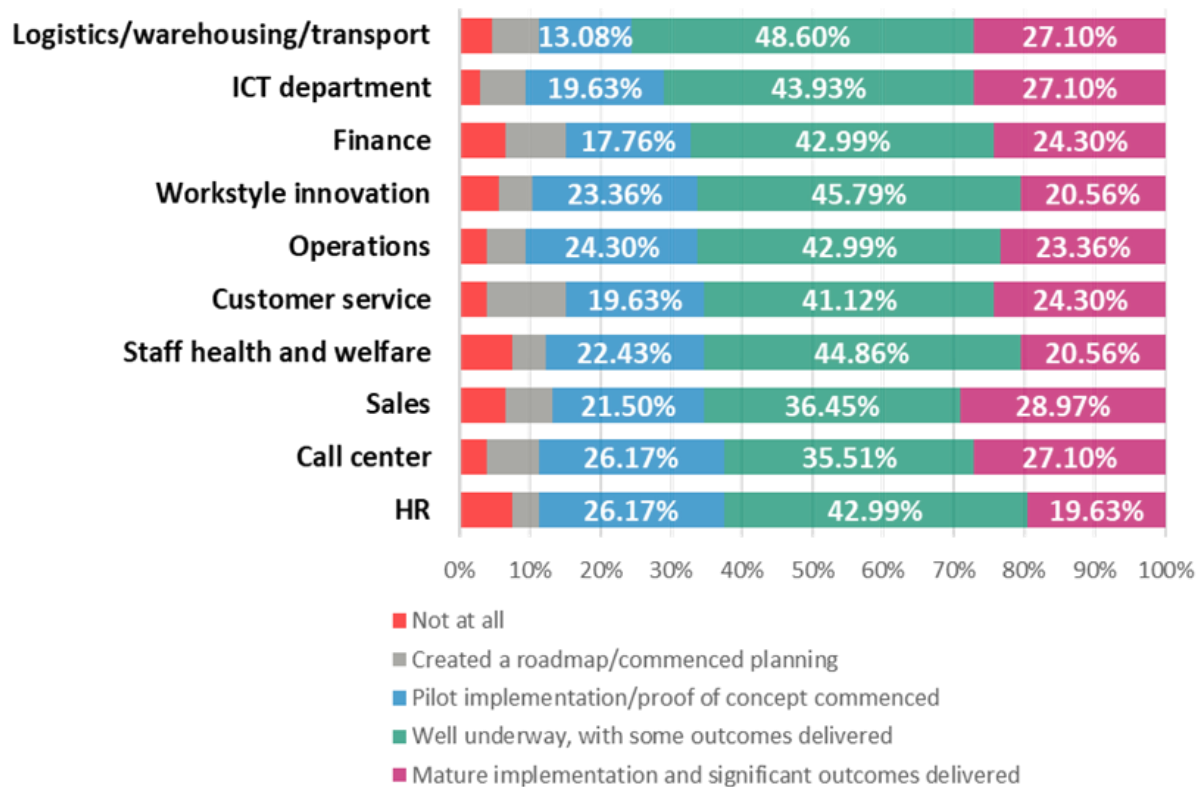


Workplace Innovation Challenges – Top 10



Workplace Innovation: Progress

Workplace Innovation Progress for Business Operations - Top 10



Workplace Innovation Progress for Business Operations

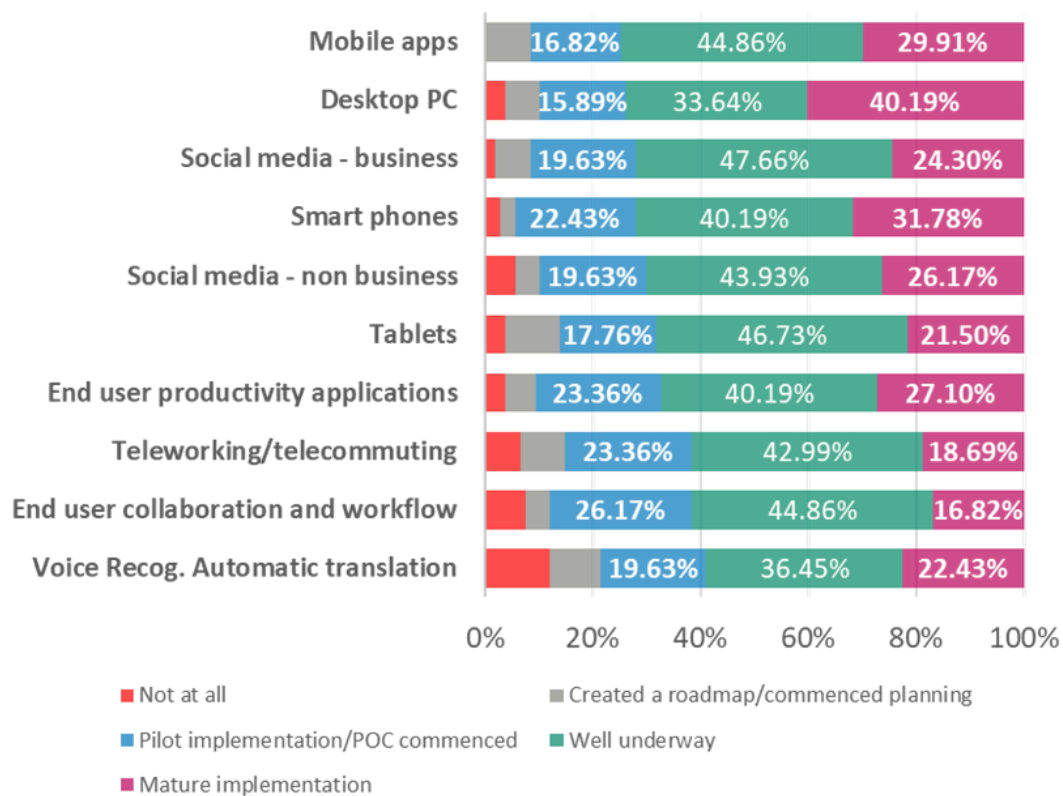
We asked ICT decision makers to identify their progress levels for Workplace Innovation across 15 key business operations areas. The top 10 are shown here.

Most stated that they were making progress with programs that were well underway or mature and outcomes delivered in the areas of logistics/warehousing and transport (75.7%), ICT (71%), and finance (67.3%).



Workplace Innovation: Progress – Specific Applications

Workplace Innovation Implementation Progress - Top 10



Workplace Innovation Implementation Progress Specific Applications

Workplace Innovation spans many technologies and applications. We provided a list of 14 and asked respondents to indicate their level of implementation for specific application types. The top 10 are shown here.

Mobile applications ranked number one with 74.8% of respondents well underway or having significant outcomes delivered.

Desktop PC implementations came in at 73.8% and Social media for business and smart phones both had 72% responding.

71% of respondents had also progressed well with allowing social media for non-business.



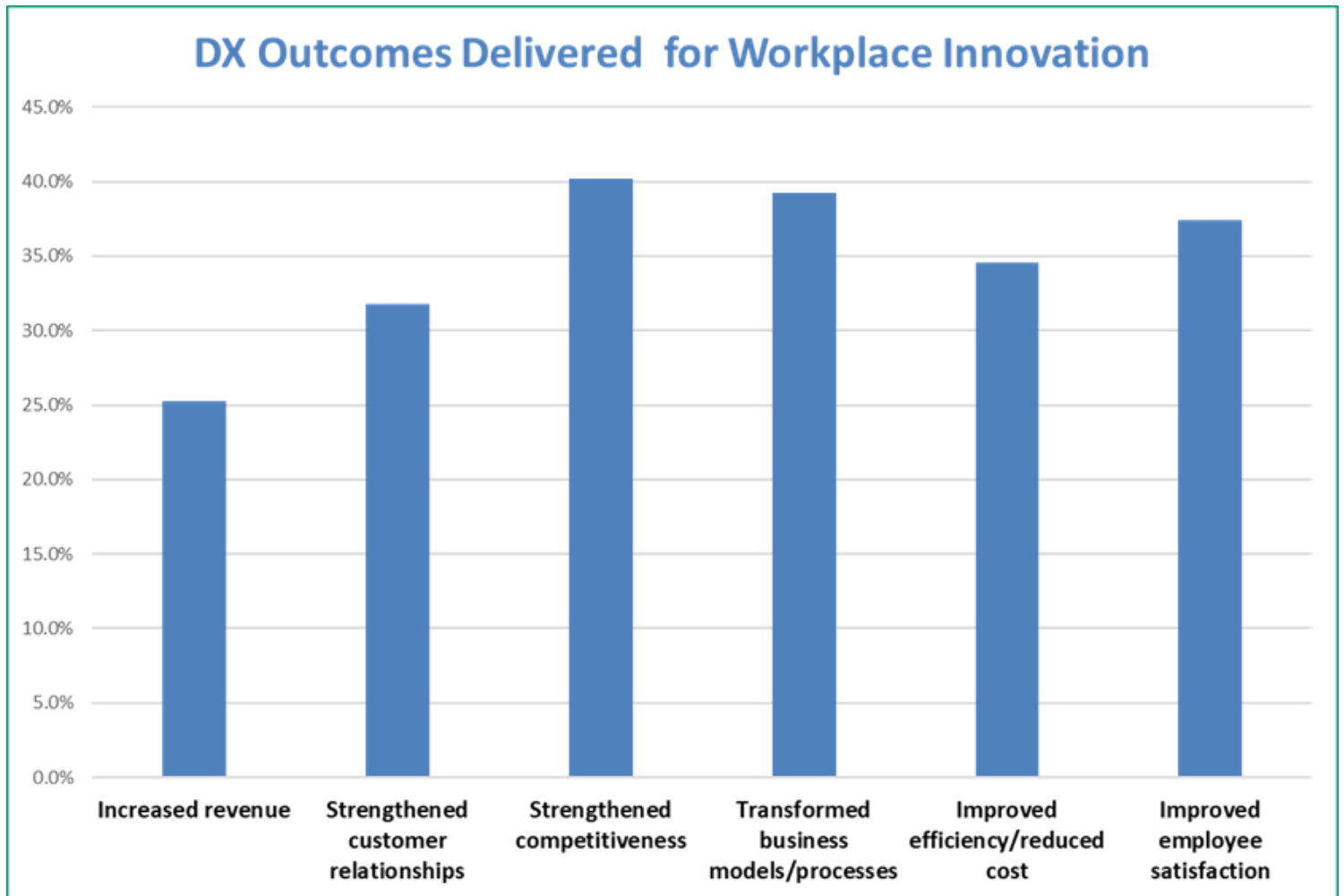
Workplace Innovation: DX Outcomes Delivered

DX Outcomes for Workplace Innovation

We asked respondents to indicate to what extent DX initiatives had delivered outcomes for Workplace innovation.

40.2% indicated that DX initiatives in the area of workplace innovation had strengthened competitiveness.

Transformed business models/processes were achieved by 39.3% of respondents and improved employee satisfaction by 37.4% of respondents.



Workplace Innovation: Preferred Provider Location

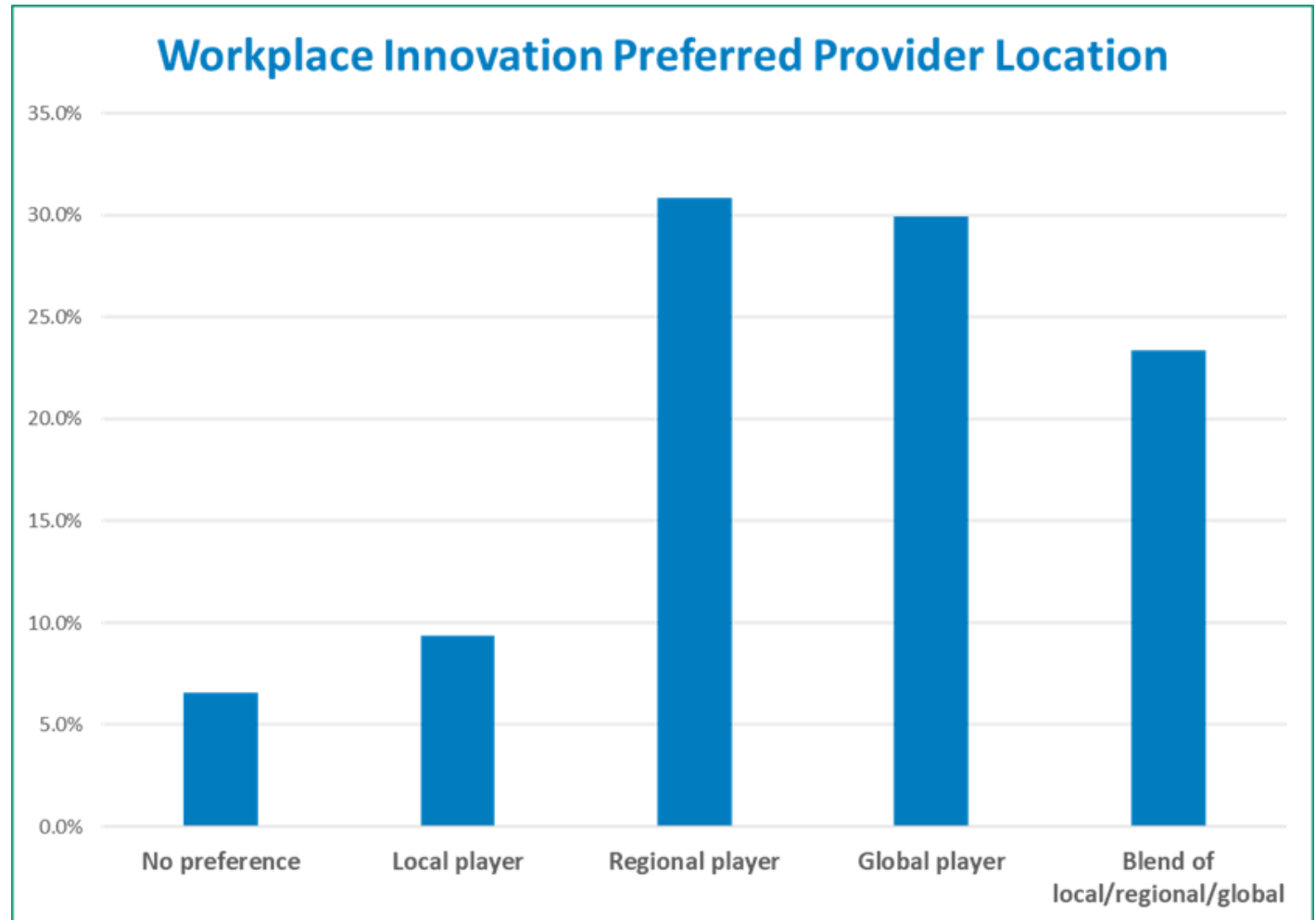
Workplace Innovation Preferred Provider Location

We asked respondents their preferred workplace innovation provider source in terms of geographic location.

30.8% preferred a regional, closely followed by a global player at 29.9%.

23.4% preferred a blend of local/regional and global players.

With the remainder preferring a local player (9.35%) or no preference at all (6.5%).



Conclusion

Conclusion

Massive changes are happening all around us.

Digital technology has transformed the workplace, as it has so much else. The very concept of the workplace has evolved. For an increasing number of people, it is no longer a physical location. Rather, it describes the wider virtual environment enabled by such technology as smartphones, mobile broadband, virtual and augmented reality, collaboration tools and a range of other workplace productivity technologies.

These new technologies have been the most quickly adopted technology in human history. They have also enabled many new applications and new ways of working, driving a whole range of initiatives and technologies to improve employee productivity and engagement.

There are many names for this – **Workplace Innovation, Workstyle Innovation Smart Workplace** and others – and many technologies that work together to make it happen. These include:

- Collaboration tools: software that helps individuals in the workplace to work together on projects by sharing applications and data.
- Social media: a consumer technology increasingly being used for workplace productivity.
- Workflow and content management
- Mobility: smart phones, mobile broadband and mobile apps have enabled individuals to work anytime and anywhere.
- Unified Communications: the bringing together of different media – voice, data, image, video – into one integrated corporate communication system.

Thai Business Leaders Response

These new ways of working and delivering technology to staff create a number of challenges. In the workplace, mobile technologies increasingly mean that for the first time in history we are location independent. We are connected anytime and anywhere.



ICT Decision makers in Thailand understand the necessity for supporting corporate objectives and increasing staff productivity.

Thai business leaders are embracing the changing business and technology environment by providing policies,

budget and technologies to enable staff to work more productively both in the office or remotely. This is especially true of mobile applications.

Although still in the early stages of implementation for many organisations, Thai workplace/workstyle innovation outcomes have been encouraging, especially in terms of increasing competitiveness, transforming business models and improving employee satisfaction.

TMS Digital Transformation Technology Matrix (DXTM)

TMS Digital Transformation Technology Matrix (DXTM)

Technology & Management Services (TMS) has developed a proprietary taxonomy of technologies and trends to ensure consistency of terminology. The TMS Digital Transformation Technology Matrix (DXTM) provides a comprehensive model for our research focus.

DXTM comprises **five user groups**, from individual to the wider society:

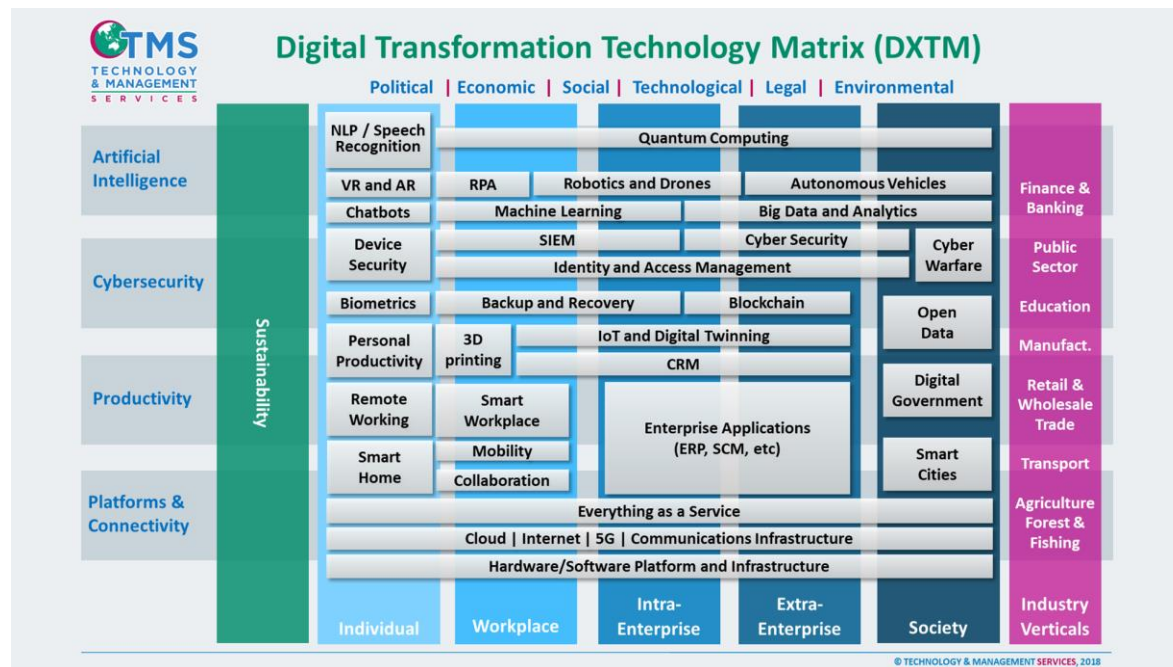
- **Individual:** The effect of Digital Transformation on individuals, at work and in their personal lives.
- **Workplace:** The effect of Digital Transformation on individuals and workgroups within the workplace.
- **Intra-Enterprise:** The effect of Digital Transformation on business practices and business models within the organization.
- **Extra-Enterprise:** The effect of Digital Transformation on the way the organization interacts with other organizations.
- **Society:** The effect of Digital Transformation on the economy, government and the wider community.

Overlaid on these five groups are **four major classes of application or technology**. Some of these have their primary effect on only one level, some affect two or more. The four technology areas are:

- **Platforms & Connectivity:** Technologies which enable individuals and organizations within each level to communicate and interact with others at their level and beyond. At the base are the underlying connectivity technologies – Cloud / Internet / 5G / Comms infrastructure/Hardware & Software Platforms – which sit across all five user groups and are the key enablers of the interconnected world at every level.
- **Productivity:** Technologies which enable and increase the productivity across functions at every level and across levels.
- **Cybersecurity:** Technologies which prevent unwanted intrusions, and which enable the efficient and continued operation of the other technology areas.
- **Artificial Intelligence:** Machine based technologies which enable new applications through the simulation of human reasoning.

Sustainability/Corporate and Social Responsibility (CSR) are increasingly critical considerations at all levels, and this aspect also overlays the four major classes of application and technology.

Industry Verticals have differing levels of technology uptake and maturity and are therefore specifically included in the research focus.



TMS Research Approach Based on DXTM



TMS Research Approach

The TMS Digital Transformation Technology Matrix (DXTM) enables TMS to clearly identify key technologies and the groups they affect. We discover the trends in each area through primary research – comprehensive and intensive large-scale surveys of ICT decision makers across major industry sectors.

Demographic analysis then allows us to measure and compare the effect of each technology in each industry sector, and also to compare their impact across different sizes of organization and different countries.

Primary research of this nature is based on what the users of the technology are thinking and doing. This quantitative analysis is complemented by qualitative research based on interviews and round-table discussions with key players in the user and vendor communities.

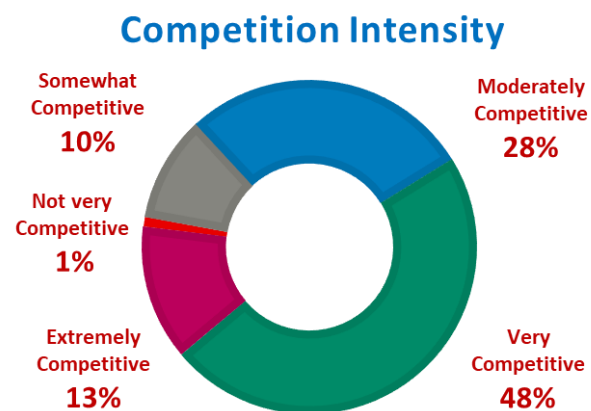
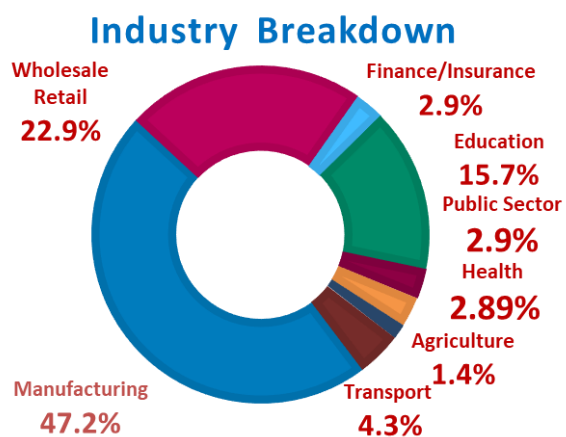
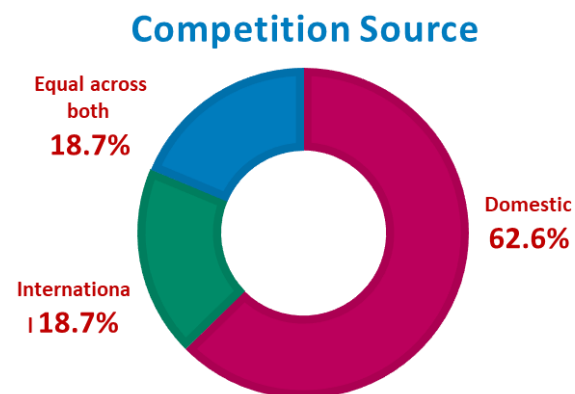
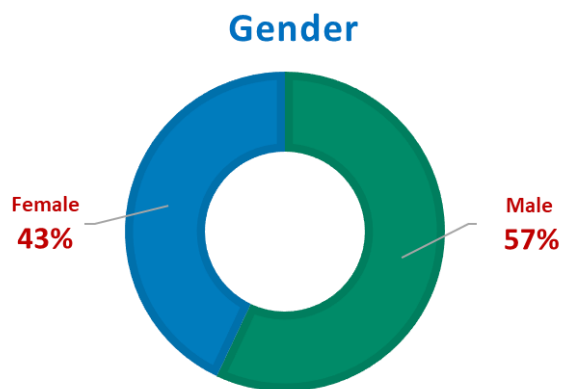
This proven methodology offers insights simply not available with secondary research. It is the users of technology that ultimately determine the success and speed of its implementation.

When predicting futures there is no substitute for asking the users of the technology about their attitudes, behaviours and intentions.

Demographics

Exhaustive Data Collection Process and Demographics

Almost 10,000 potential respondents were contacted across Thailand, with the aim of identifying over 100 key ICT Decision makers. TMS applied 7 levels of exhaustive screening and validation questions, then conducted extensive data scrubbing, and removal of non-representative data and outliers. The result was a highly qualified and reliable set of complete responses from 107 ICT decision makers. These responses have been summarised in the attached report. Key demographic splits are shown below.



How to Contact Us

Acknowledgement to ICT Decision Makers

TMS would like to thank the many hundreds of people and organizations involved in the production of this report. We would particularly like to thank the ICT decision makers/CIOs and senior IT managers who responded to the survey upon which it is based. We appreciate the many time constraints they face, and without their assistance the exercise would not have been possible.

About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company, offering a full range of technology products, solutions and services. Approximately 140,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. Fujitsu Limited (TSE:6702).

For further information, please see <http://www.fujitsu.com>

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About Technology & Management Services (TMS)

Technology & Management Services is an Asia/Pacific based Research and Advisory services company specialising in the areas of ICT Strategy for technology users and providers, Research-based Thought Leadership, Market and Competitive Intelligence, and Marketing and Technology Strategy consulting projects.

TMS is also highly experienced in the area of Cross-Cultural Communications and Leadership, Managing Virtual Teams across multiple geographies, and runs training and workshops in these areas. In addition TMS's associates are skilled at the delivery of presentations at events ranging from facilitation of small C-level roundtables, through to 'big-tent' major keynotes with audiences in the thousands.

With a combined ICT market experience of over 120 years, TMS associates have supported hundreds of ICT providers and other private and public sector organizations. TMS has successfully executed projects globally, but has a particularly strong focus on Asia/Pacific and Japan.



For further information email: Info@techandmanagementservices.com

