



**NEC**

# Assessing Malaysia's DX Progress: Are Malaysian Organisations on the Right Track?

**Micro Survey Report**

**aopg**  
Insights

RESEARCH - ANALYSIS - ANSWERS



# Unlocking Digital Transformation Success, An NEC Perspective

## Opening Words From NEC Malaysia

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NEC prides itself in helping companies and organisations with their digital and business transformation journeys.

In our experience, transformation happens through reacting to market conditions, so to some extent, being agile and flexible is an important part of the digital transformation (DX) journey.

But the irony here is that achieving that flexibility and agility often takes planning. Furthermore, whilst responsiveness to market conditions is a must, it is also really important to have a DX strategy.

One of the problems we see organisations have when trying to formulate the strategy is that they are often unsure where to start and need assistance in understanding the important issues and skills they will need to successfully transform.

From our perspective at NEC, we like to look at the macro conditions and understand the major issues and concerns that permeate an entire market. Having this kind of insight helps us to fine-tune our go-to-market offerings.

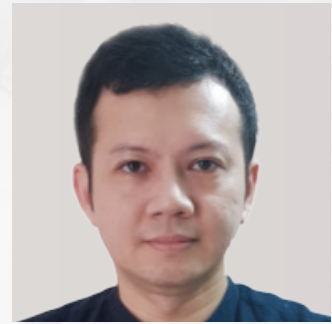
It was for this reason, we commissioned AOPG Insights to conduct a survey on our behalf. The results were so interesting that we decided to make some of the findings public in the survey write-up.

There are many data points that will catch your eye. Personally, I was surprised by how prepared (or unprepared) organisations feel they are in dealing with security implications as they go through digital transformation and modernisation.

I hope you find this research as insightful as my team and I did. Additionally, I hope it provides you with valuable insight into some of the concerns your peers are wrestling with as they embark on their DX journeys.

# Malaysia's Digital Transformation: Challenges and Opportunities Unveiled

Syed Ahmad, Editor at AOPG



Digital transformation (DX) is revolutionising the way businesses operate in the modern world. With the current macroeconomic conditions, today's enterprises must navigate challenges such as inflation, geopolitical tensions, and economic uncertainty, while addressing issues in their supply chains, meeting increasing customer expectations, and prioritising sustainability.

Digital transformation can provide businesses with the tools to address these challenges and more by building speed, innovation, and agility across functions to maintain a competitive edge and sustained revenue models.



Realising its importance, in Malaysia, DX is supported by the government through initiatives such as the [Shared Prosperity Vision 2030](#) as well as the [Malaysia Digital Economic Blueprint](#), or MyDigital, which offer a path to effectively unlock the possibilities of the digital economy towards accomplishing socioeconomic development that is both inclusive, responsible, and sustainable.

With this in mind, and with digital transformation being the buzzword across the globe, the pertinent question is, where do Malaysian organisations stand in this digital age?

In this report, we present the results of a survey conducted to understand how businesses in Malaysia are digitally transforming and the challenges they face in the process. Furthermore, we investigate the extent to which security takes precedence in their DX pursuits. The findings of this survey will provide insights for businesses seeking to embark on digital transformation while ensuring they stay secure.

Without further ado, let's dive into the results.



## Top Digital Technologies Driving Business Transformation in Malaysia

Ultimately, technology is a key enabler of digital transformation, allowing businesses to remain competitive and relevant in an increasingly digital world. We sought to find out the top digital technologies implemented by businesses in Malaysia as part of their digital transformation journey, and these four technologies stood out among the rest:

### Cloud Computing (89%)

It should come as no surprise that as high as 89% of respondents are “in” on the cloud. Despite economic uncertainties, industry analysts such as [Gartner have predicted](#) that cloud spending will experience growth well into 2023 and beyond. Sid Nag, Gartner’s Vice President Analyst believes this to be due to cloud computing being “a bastion of safety and innovation”, able to support growth during uncertain times due to its agile, elastic and scalable nature.



### Big Data and Analytics (64%)

Big data and analytics are essential components of digital transformation, enabling businesses to harness the power of data to drive insights, optimise operations, and enhance customer experiences. They are by no means new in the world of IT. However, as the volume and complexity of data have increased significantly in recent years, new analytics tools and techniques, especially those powered by artificial intelligence (AI) and machine-learning (more on these later), are taking them to greater heights – allowing businesses to gain even deeper insights into their operations and customers and to develop more sophisticated and targeted digital strategies.





## Artificial Intelligence and Machine-Learning (47%)

Just as AI and machine-learning have transformed data analytics, they have also taken so many areas of business to the “next level” and as such, are being implemented in various use-cases, from customer service and marketing to supply chain management and operations. Based on the results, we can see that Malaysian companies are realising how AI and machine-learning can truly transform how they operate by allowing them to automate processes, improve decision-making, and deliver more personalised experiences to customers.



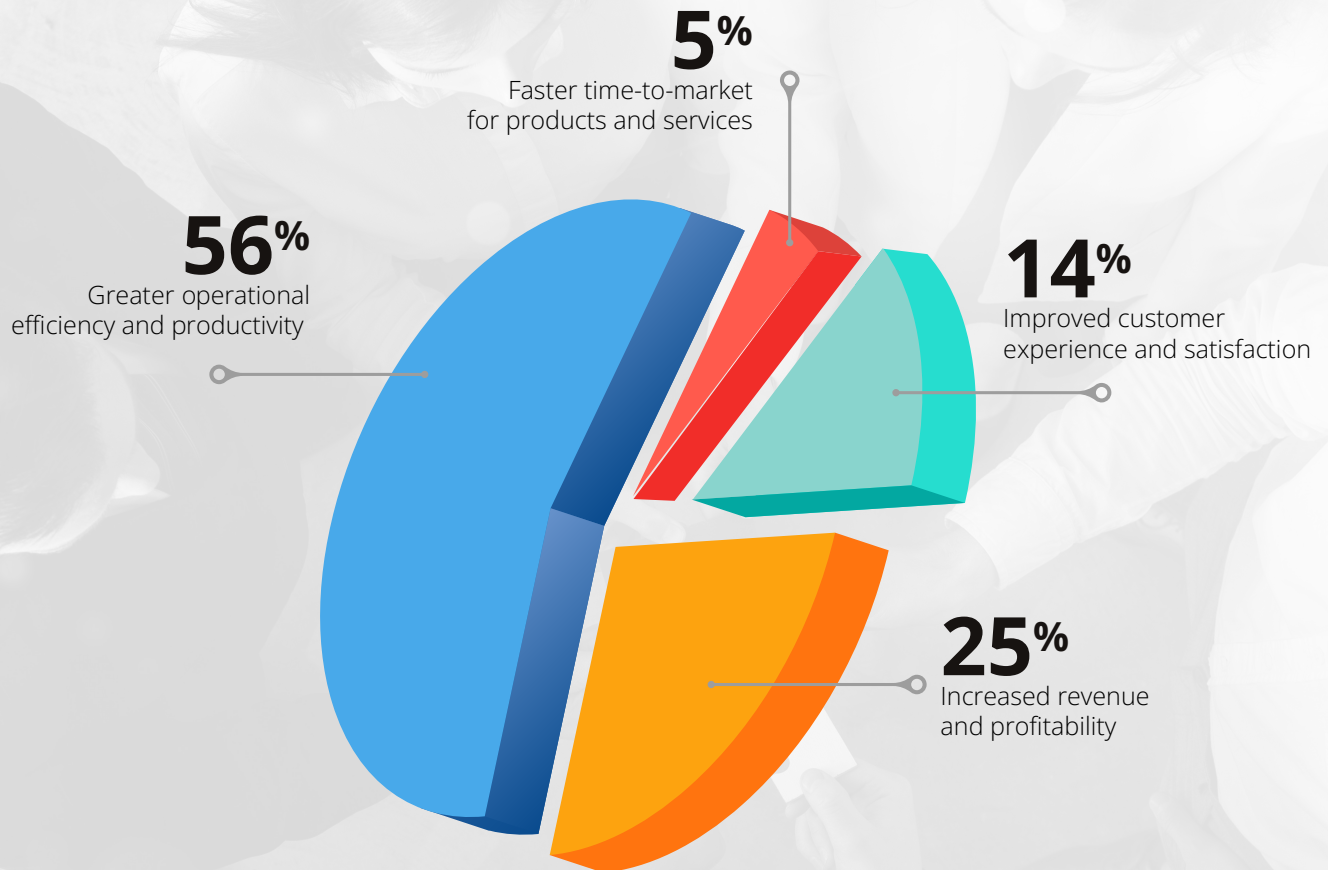
## The Internet of Things (IoT) (44%)

We are living in the age of devices and Malaysian businesses are not immune to the impact of this technological revolution. By riding the wave of IoT, businesses can connect and collect data from a wide range of devices and sensors from the physical world and convert it into useful, actionable intelligence. In short, IoT is a platform that allows traditional companies to become data-driven and reap benefits that are already being enjoyed by digitally native companies, such as increased competitiveness, faster innovation, better efficiency and enhanced customer experiences.





As businesses aspire to digitally transform, an interesting question to ponder is how they measure the success of their digital transformation initiatives. For Malaysian businesses, these are the benchmarks for DX success:



It's worth noting that these results were obtained from a survey of senior IT professionals in Malaysian businesses, and as such, their responses may have been influenced by their focus on efficiency and productivity. If the same question were posed to Line-of-Business (LoB) executives, they may have placed a greater emphasis on "faster time to market" while finance executives may have prioritised "increased revenue and profitability." While this is speculation, it's important to consider the potential impact of the type of respondent on the results.

Achieving digital transformation is an ongoing process, rather than a finite goal that can be "done". While there may be specific milestones or objectives that a company aims to achieve as part of its digital transformation journey, the goalposts are constantly shifting as new technologies and market conditions emerge.

That said, a company can measure its progress toward digital transformation by assessing its level of digital maturity across key areas such as technology adoption, data analytics, customer engagement, and process automation. Additionally, a company that has achieved digital transformation will likely be characterised by a culture of innovation, agility, and continuous improvement, rather than a static state of completion.

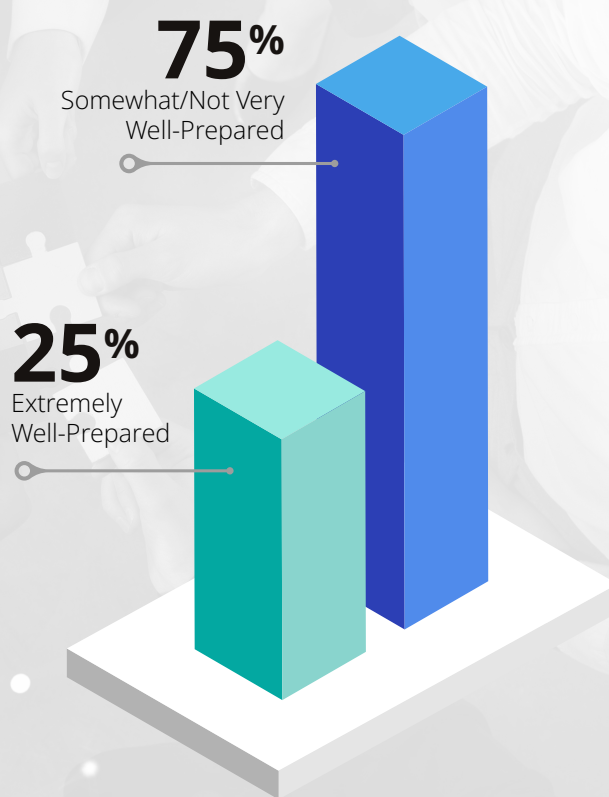


## Do Businesses Recognise the Need for Better Cybersecurity Measures?

For any business that is embarking on a DX journey, security is paramount because the adoption of new technologies and the increasing reliance on digital processes create new risks and vulnerabilities. The interconnected nature of digital systems also means that a single breach can have far-reaching consequences, impacting not only the company but also its customers, partners, and stakeholders.

Thus, it is essential for companies to take a proactive approach to security, integrating security measures and protocols into every stage of their digital transformation journey. Only then can they minimise risk and protect their assets, while enabling them to realise the full benefits of digital transformation.

### How Well-Prepared Is Your Organisation To Address Security Challenges as It Digitally Transforms?

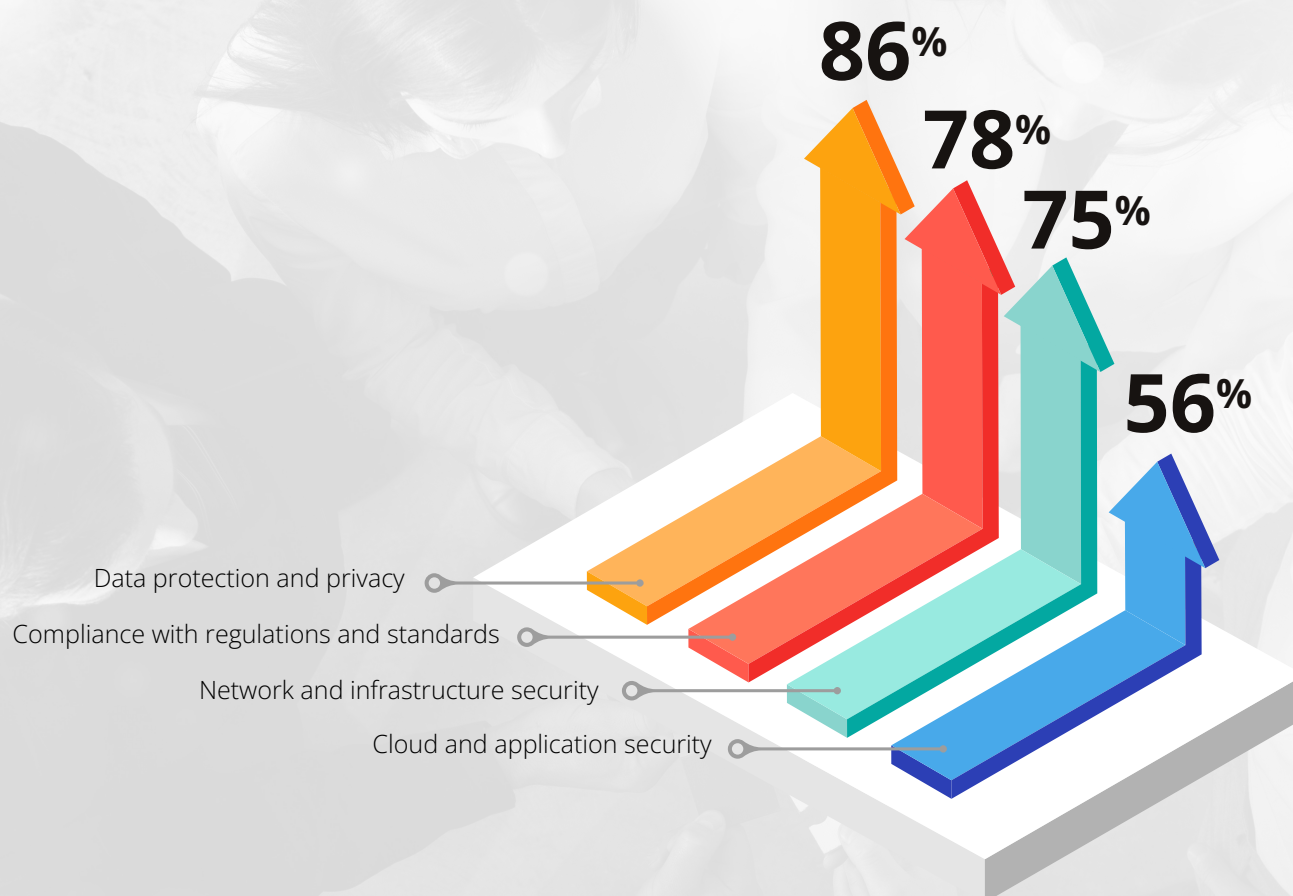


When asked about their preparedness in addressing today's security challenges, only a quarter of Malaysian companies thought they were "extremely well-prepared", with security infrastructure that is highly advanced and constantly updated. Meanwhile, the majority of respondents weren't quite as confident in their cybersecurity capabilities, with 75% having taken some steps to improve their security posture but recognising the need for better security measures.

This awareness can be taken as a positive as it allows businesses to identify potential vulnerabilities and take proactive steps to address them, as well as develop a more comprehensive and effective security strategy that is tailored to their specific needs and risks. In fact, respondents named the following as security concerns that they are most focused on addressing:



## Top Four Security Concerns Malaysian Companies Are Focused on Addressing



Based on the survey results, it appears that data protection and privacy is the top security concern for Malaysian companies, with 86% of respondents indicating that they are focused on addressing this issue. This is not surprising, given the increasing amount of sensitive data that companies are collecting and storing, and the potential risks associated with data breaches and cyber attacks. Also, companies that prioritise data protection and privacy will typically also focus on compliance with relevant regulations and standards, which possibly explains why this is among the top priority (78%) among organisations in Malaysia.

Another major concern is network and infrastructure security. This is presumably in light of the increasing sophistication of cyber attacks and the potential risks associated with unauthorised access to company networks and systems. Addressing this concern should indeed be a priority among organisations, considering how the network is the foundation on which all security measures are built and implementing strong network security measures not only help to enforce security policies but also ensure compliance with regulations and standards.

Last but certainly not least, as we have established earlier how businesses in Malaysia are well on their cloud adoption journey, it is only expected that they would look to implement best practices for securing cloud environments and applications, which is a priority for just over half of respondents (56%).



## Zero-Trust to Address Data, Network and Cloud Security Concerns

Overall, businesses must prioritise security as a key consideration in their digital transformation efforts, rather than an afterthought. Taking a zero-trust approach may just allow them to do this effectively.



### What Is Zero-Trust?

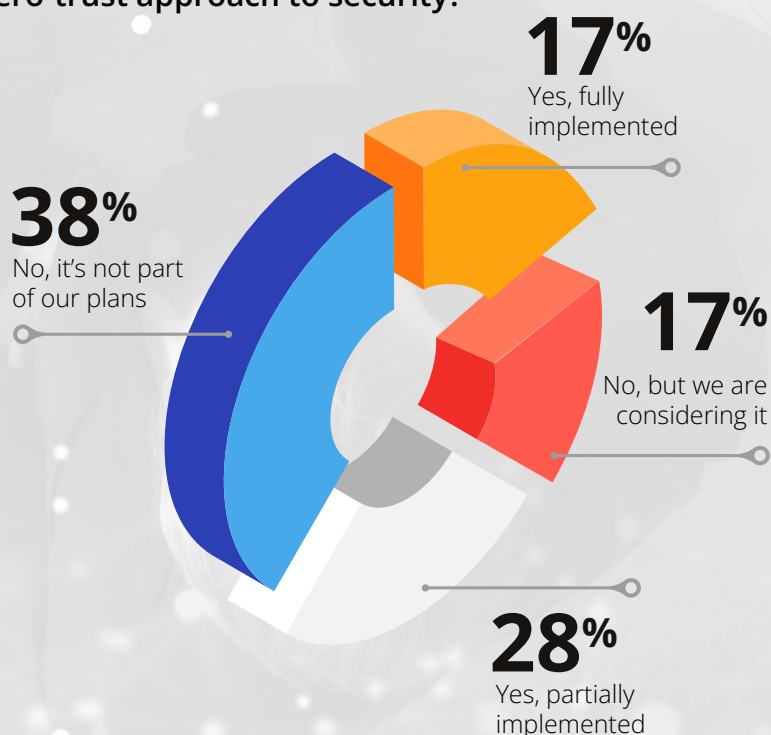
A zero-trust approach is based on the principle of "never trust, always verify," which means that access to network resources is only granted after the user, device, or application has been verified and authorised.

This approach assumes that all users, devices, and applications are potentially compromised, and require continuous verification of their identities and access rights. By implementing a zero-trust approach, businesses can better protect their data and systems from cyber threats by reducing the attack surface and minimising the potential impact of a security breach.

For many years, enterprise networks have emphasised perimeter defences, which has resulted in authorised users having wide-ranging access to resources. However, this approach has led to lateral movement within the network, which is now considered one of the greatest security challenges. Traditional methods, which may be successful in preventing attacks from external sources, may not be quite as effective in identifying or preventing attacks that originate from within the network.

How has the idea of zero-trust caught on among organisations in Malaysia?

### Has your company implemented a zero-trust approach to security?





Despite growing recognition of the need for a zero-trust approach to security, many organisations have been slow to adopt this strategy, often due to concerns about the complexity and cost of implementation, as well as the potential impact on user productivity. In Malaysia, only 17% of organisations have fully implemented zero-trust, while as high as 38% aren't even considering it.

Nevertheless, just like digital transformation, zero-trust migration can be seen as more of a journey rather than a complete replacement of an enterprise's existing infrastructure. The National Institute of Standards and Technology (NIST) believes that in the coming years, organisations will likely continue to operate in a hybrid model (with both zero-trust and legacy approaches) as they continue their IT modernisation.

[NIST also states](#) that a zero-trust Architecture (ZTA) is not a single network architecture, but a set of guiding principles, whose overall design denotes:

- A shift away from wide network perimeters to a narrower focus on protecting individual or small groups of resources.
- No implicit trust is granted to systems based on their physical or network location. The focus of which is to address two main objectives:
- Eliminate unauthorised access to data and services.
- Make the access control enforcement as granular as possible.

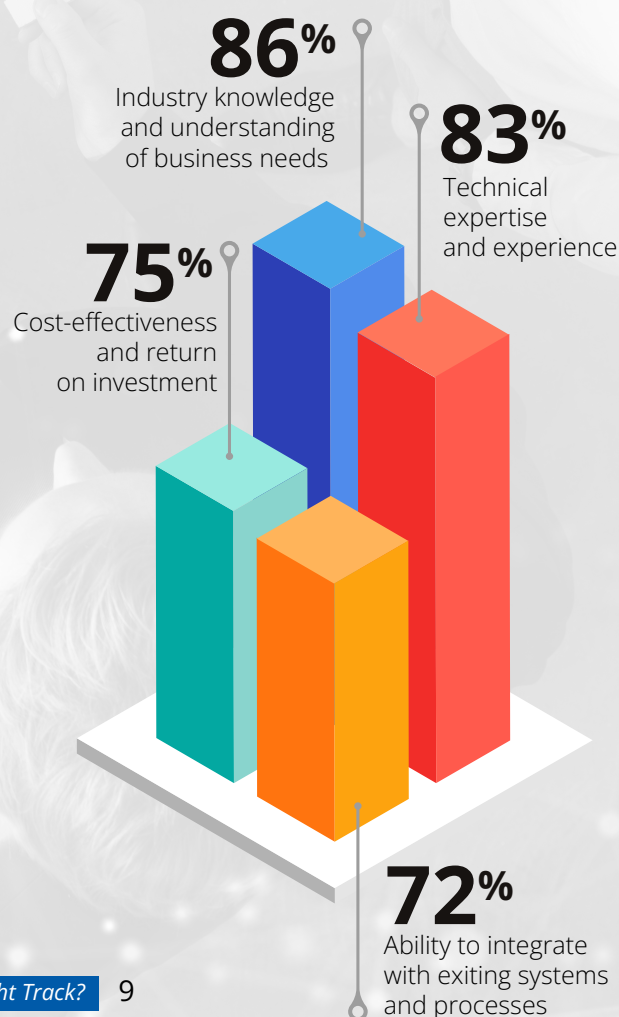
Ultimately, implementing a zero-trust framework can help Malaysian businesses to stay ahead of the evolving threat landscape and maintain the trust of their customers and stakeholders.

## Choosing The Right Technology Partner Crucial For DX Success

Digital transformation is a complex and multifaceted process that involves integrating new technologies, optimising business processes, and enhancing customer experience. Given the scale and scope of these initiatives, it is unlikely that any organisation can go at it alone and achieve success without a trusted partner or vendor.

It's not just about selling you the latest products or solutions. A digital transformation technology partner or vendor can provide a range of expertise, resources, and tools that enable organisations to accelerate their digital transformation journey. For example, they can offer strategic guidance on selecting the right technologies and solutions, provide technical support and training, and help with data analytics and cybersecurity. They can also bring industry-specific knowledge and experience that can help your organisation to navigate regulatory compliance requirements and stay ahead of market trends.

When selecting a digital transformation technology partner or vendor, these are the most important factors among businesses in Malaysia:



In short, a digital transformation technology partner or vendor can be a critical enabler of success for organisations looking to embark on a digital transformation journey. By leveraging the right partner's expertise and resources, organisations can avoid costly mistakes and delays, streamline processes, and achieve faster time-to-market.

## Avoiding the Pitfalls: Why Do Most DX Projects Fail?

The hard truth is that not all digital transformation endeavours are successful, and in fact, many end up in failure. The numbers may vary but a McKinsey study for example states that [up to 70% of transformations fail](#).

As a leading provider and integrator of advanced IT, communications, and networking solutions that is on a mission to build a sustainable and more efficient society through the digital transformation of business infrastructure, [NEC](#) has singled out several key factors as to why most DX projects fail to achieve intended results:

### ■ Project Management:

- ▶ Failure to designate when projects begin and end.
- ▶ Promoting DX as a one-shot project instead of a process that is continually transforming a business.
- ▶ Focusing investments on new businesses and neglecting existing businesses.
- ▶ Unclear objectives and strategies.
- ▶ Lack of leadership.

### ■ Process:

- ▶ Failure to deploy data analytics to gain a better understanding of customers.
- ▶ Focusing on conventional paradigms without exploring new ideas.
- ▶ Targets are too ambitious and do not consider customer requirements and competitor readiness.
- ▶ No time is spent on recovering the cost of investments.

### ■ Penetration and Retention:

- ▶ Inability to embrace failure and its lessons.
- ▶ Resistance to change.
- ▶ Unable to prioritise engagement.

## Avoiding the Pitfalls: Why Do Most DX Projects Fail?

In order to overcome these challenges and successfully implement DX, [NEC recommends](#) two major approaches:

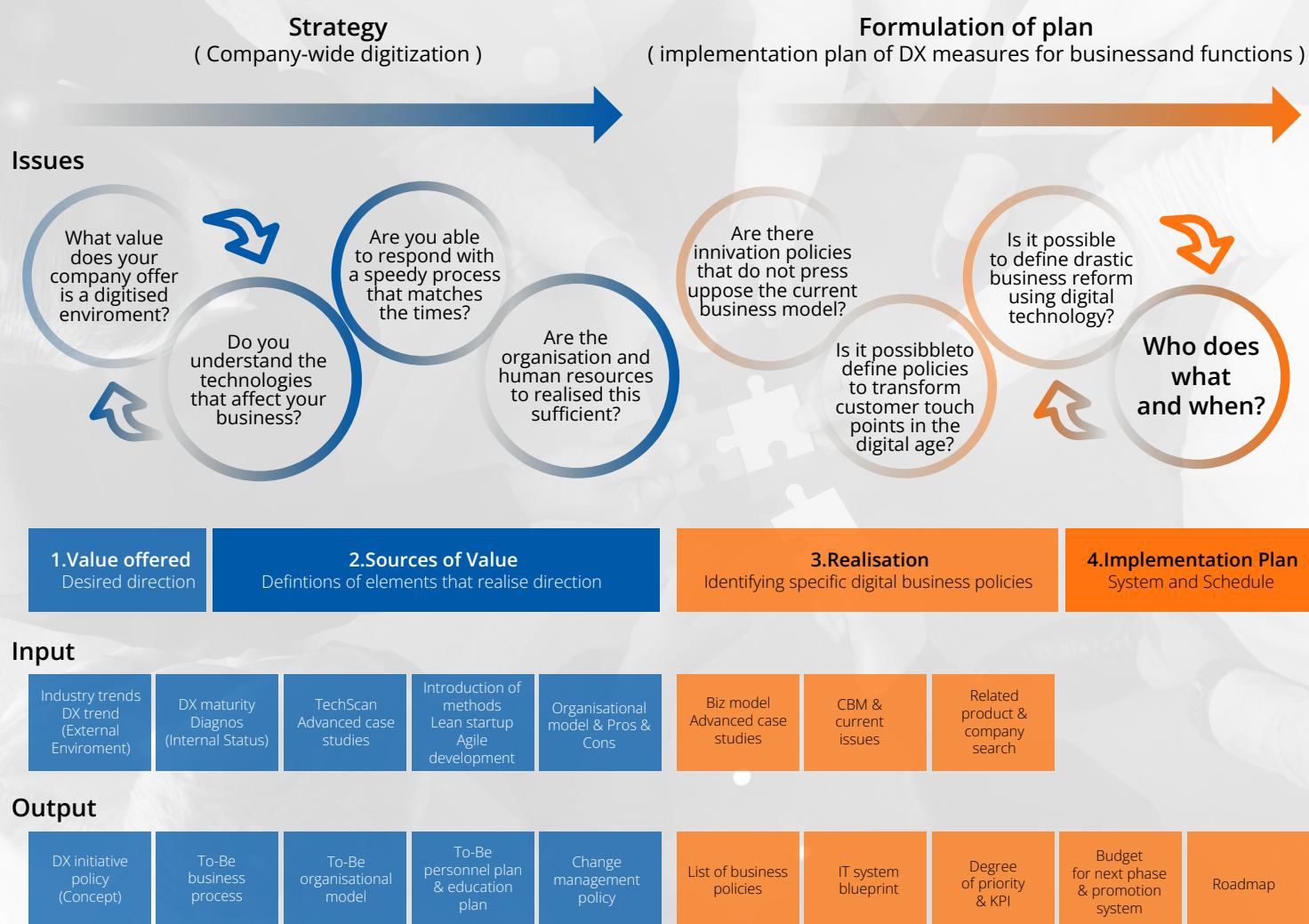
■ **The Waterfall Approach** – This is a traditional approach where a DX agenda and roadmap for the entire company and each functional area are established. This is followed by conceptual planning, solution planning, and a transformation preparation phase, and then finally the execution and establishment of that transformation.

■ **The Agile Approach** – This modern approach promotes agile change through a series of verifications and updates, similar to the lean startup approach used in new business development after the DX agenda is finalised.



The approach taken depends on the nature of the DX theme. For instance, a lean startup approach may be used for customer experience transformation or new business development where it is necessary to proceed while verifying value, while a waterfall approach is used for mission-critical areas such as system construction.

Going back to the importance of DX partnerships, a partner like NEC is able to deliver DX offerings and consulting services that support the formulation of DX concepts and strategies for each business, customer experience, and area of operations:



## Conclusion

The results of the survey suggest that Malaysian organisations are currently on a positive trajectory with regard to the adoption of digital transformation. However, the findings also indicate that there is still ample opportunity for these organisations to enhance their efforts in several key areas.

The pandemic has certainly highlighted the significance of digital transformation in addressing actual issues that impact a significant portion of the population, rather than solely aiming to minimise expenses and enhance revenue. By continuing to invest in and prioritise digital transformation initiatives, Malaysian companies can take advantage of the benefits that this approach offers and position themselves for success in a rapidly evolving business landscape.

## Notes on Survey Methodology



**Survey Sample** - We interviewed Malaysian-based IT professionals, inclusive of IT specialists, IT managers and IT directors, all of whom had an element of responsibility for IT and digital transformation efforts in their organisation. All surveyed companies were large enterprise corporations from a varied range of industries, from manufacturing & engineering, banking & finance, healthcare, retail and others.

**Sample Selection** - In conducting this study, we focused on our subscribers and readers, with whom we have convenient access and, where possible, who have identified interest in digital transformation. For the purposes of a digital transformation-related study, this method of sample selection was deemed appropriate as this survey needed to be completed by individuals with an interest in and knowledge of security issues. The insights gained from these highly targeted respondents are expected to be particularly insightful for understanding the challenges and opportunities associated with digital transformation at scale.

**Modes of Data Collection** - All surveys were completed using online forms guided by telecanvassers. Seventy-six per cent (76%) of the respondents viewed relevant content on AOPG's portal prior to being contacted by our telecanvassers. Twenty-four per cent (24%) were directed to the form after being telecanvassed despite not specifically viewing content relevant to this survey.

**Response Formats** - AOPG Insights used a combination of dichotomous and ordinal-polytomous response options for the survey questions. This level of control was implemented to give standardised answers that could be grouped, while still allowing for a wide range of responses.

**Interviewer Effect** - As the surveys were conducted using an online form, we deem that the chance for interviewers to influence responses was negligible. However, we do acknowledge that the lack of understanding of some of the terms used in the questions may potentially cause respondents to provide erroneous answers.

**Data Cleansing** - Answers by respondents that were clearly from a consumer background were excluded from the final selection set. The choice of which respondents to remove was left to the individual researcher's assessment. We acknowledge that this means it is possible, though unlikely, that a relevant respondent's answers may have been removed. We are confident that the final sample selection was representative of the skill base we needed to tap into.

**Statistical Significance** - Our sample set needed to have a specific skill set. In this case, a strong experience, knowledge and interest in IT and digital transformation. As such, the quality of respondents was preferred over quantity. We believe the sample set we have chosen provides a strong feel for the realities of Malaysian IT professionals' experience and views on digital transformation.





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