Harnessing the Power of Technology: Building a Strong Digital Economy for Malaysia's Future

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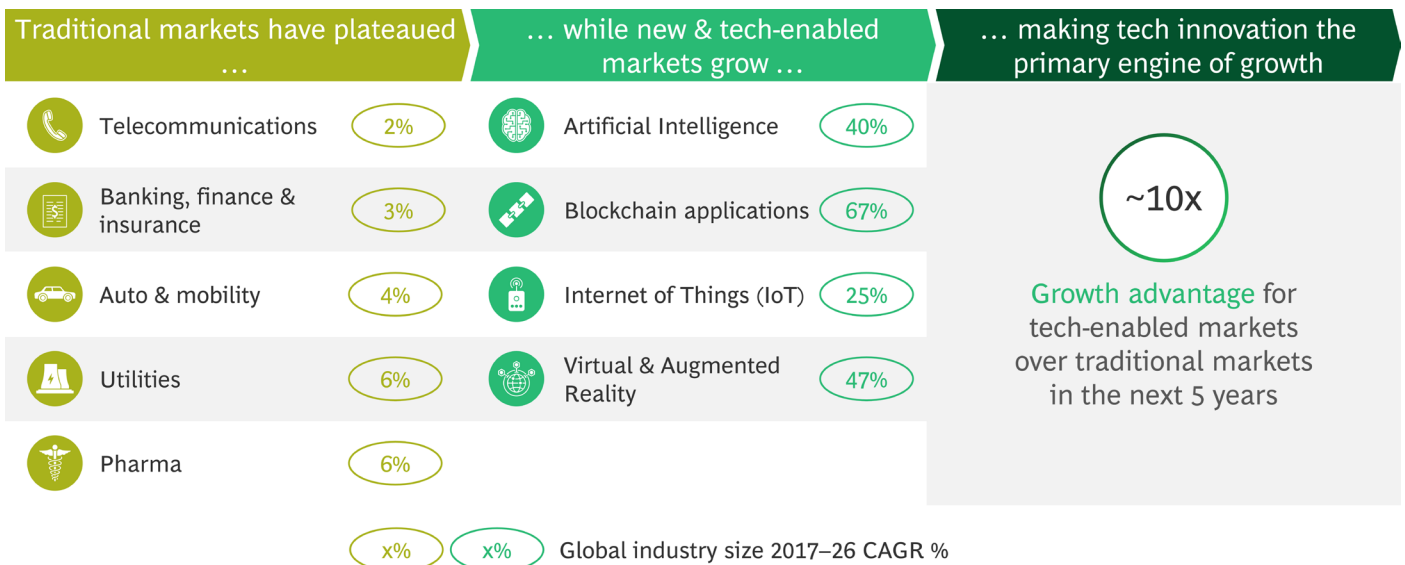
Introduction

The global business landscape is changing. Growth in traditional markets such as telecoms, banking, auto and mobility, utilities, and pharma has now plateaued. [Exhibit 1.] At the same time, rapid technology evolution has energized new high-growth markets including artificial intelligence (AI), blockchain, internet of things (IoT), and virtual and augmented reality, with significant value to capture for capable digital players. Tech-enabled markets are projected to deliver ~10X growth advantage over traditional markets in the next five years. This represents a substantial opportunity for Malaysia's expanding economy.

Exhibit 1

Traditional markets have plateaued …		… while new & tech-enabled markets grow …		… making tech innovation the primary engine of growth
Telecommunications	2%	Artificial Intelligence	40%	
Banking, finance & insurance	3%	Blockchain applications	67%	~10x
Auto & mobility	4%	Internet of Things (IoT)	25%	
Utilities	6%	Virtual & Augmented Reality	47%	Growth advantage for tech-enabled markets over traditional markets in the next 5 years
Pharma	6%			

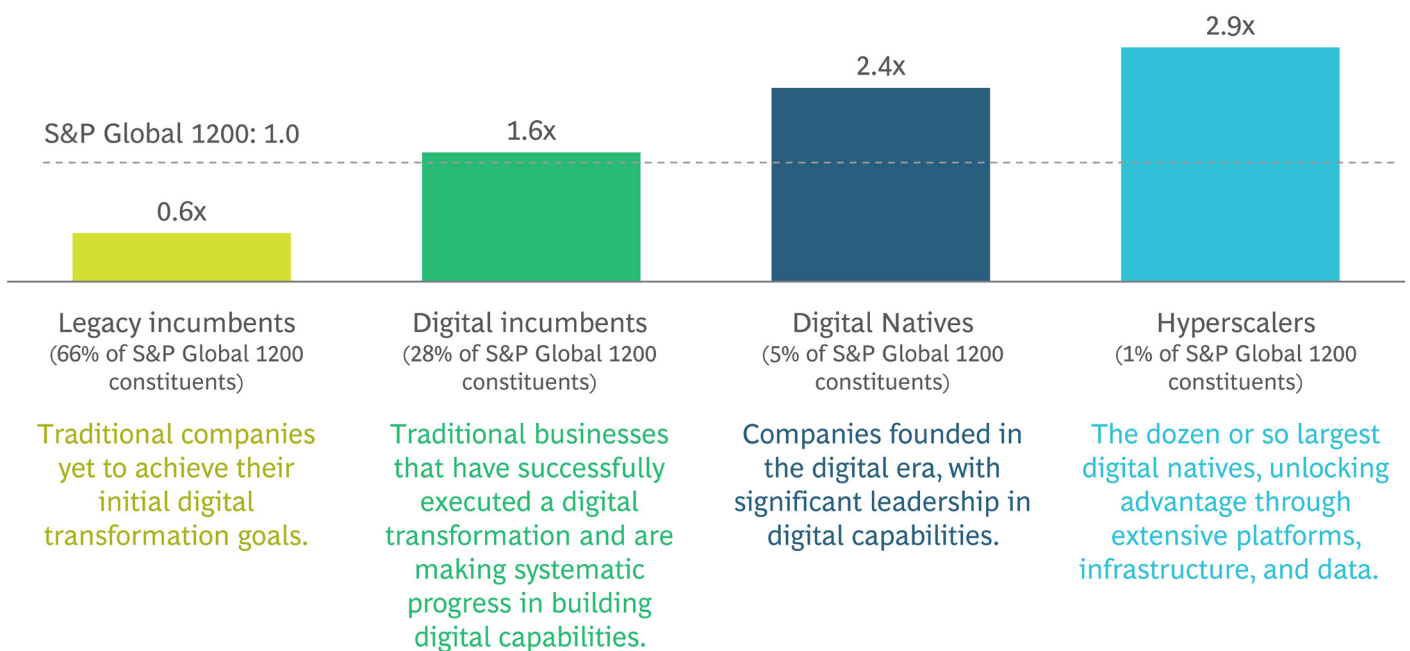x%   x%   Global industry size 2017–26 CAGR %

Traditional competitive levers are shifting from the physical, to the digital. Efficiencies of scale have given way to scale of data access. Positional advantage is now built increasingly around control of high-value, propriety data. Learning advantage has evolved from accumulated experience, to accumulated data that can inform sophisticated solutions such as neural networks. Capability has moved beyond raw understanding of efficiency to connected, interoperable, modular architecture, and agile ways of working. This data-driven approach is unlocking new levers for business success, with deeper insights, expanding scope, real-time adaptation capabilities, and

talent advantages from high-value but scarce data-focused employees.

Winning companies are demonstrating dramatically better outcomes than digital stragglers in these vibrant new markets, succeeding through new pillars of competitive advantage. Leading digital 'hyperscale' companies are delivering 2.9X the total shareholder return (TSR). Digital natives are unlocking a 2.4x return, far beyond that of the trailing digital and legacy incumbents. [Exhibit 2.]

Exhibit 2 - Winning companies are already demonstrating dramatically better outcomes in these new markets

3-year Relative Total Shareholder Return (TSR[1]) Indexed to the S&P Global 1200 Index

Legacy incumbents (66% of S&P Global 1200 constituents)	Digital incumbents (28% of S&P Global 1200 constituents)	Digital Natives (5% of S&P Global 1200 constituents)	Hyperscalers (1% of S&P Global 1200 constituents)
0.6x	1.6x	2.4x	2.9x
Traditional companies yet to achieve their initial digital transformation goals.	Traditional businesses that have successfully executed a digital transformation and are making systematic progress in building digital capabilities.	Companies founded in the digital era, with significant leadership in digital capabilities.	The dozen or so largest digital natives, unlocking advantage through extensive platforms, infrastructure, and data.

S&P Global 1200: 1.0

Companies—both legacy and emerging—are now faced with a challenging trilemma. While growth is increasingly moving towards new, tech-enabled markets, overfunding into the digital space with limited returns, and high executional failure rates, represent a formidable challenge. The reality is almost two-thirds (65%) of digital transformation efforts fail to achieve their stated goals, delivering limited sustained change.

Despite these difficulties, digital growth presents a

remarkable value-generating opportunity for Malaysia's economy. It's critical that the right adapters are in place to plug into this substantial opportunity. Boston Consulting Group (BCG) and Malaysia Digital Economy Corporation (MDEC) have undertaken detailed analysis of this evolving ecosystem, backed by an in-depth survey of businesses across Malaysia. This study helps to understand the current state of play, the drivers of change, barriers to further adoption, and the perception around the value that digital technologies can deliver for Malaysia.

Charting Malaysia's digital progress

Malaysia's digital economy has grown rapidly over recent years. This was accelerated by the COVID-19 pandemic pushing traditional businesses to shift to increasingly digital modes of operation. In 2021, the contribution of information and communication technology (ICT) to national GDP increased to 23.2%, or MYR359 billion (~US$89 billion). This represents a significant expansion of value from MYR135 billion (~US$34 billion) in 2010, reflecting a strong compound annual growth rate (CAGR) of 9.3% between 2010 to 2021. [Exhibit 3.] While the national economy contracted in 2020, the COVID-19 pandemic spurred the digital economy to grow by 12.1%. This was driven largely by the growth of the e-commerce sub-sector. This represents significant growth, but there remains substantial value still to unlock. [Exhibit 4.]

Exhibit 3 - Malaysia's digital economy outgrew rest of economy with 9.3% CAGR between 2010 and 2021[1]

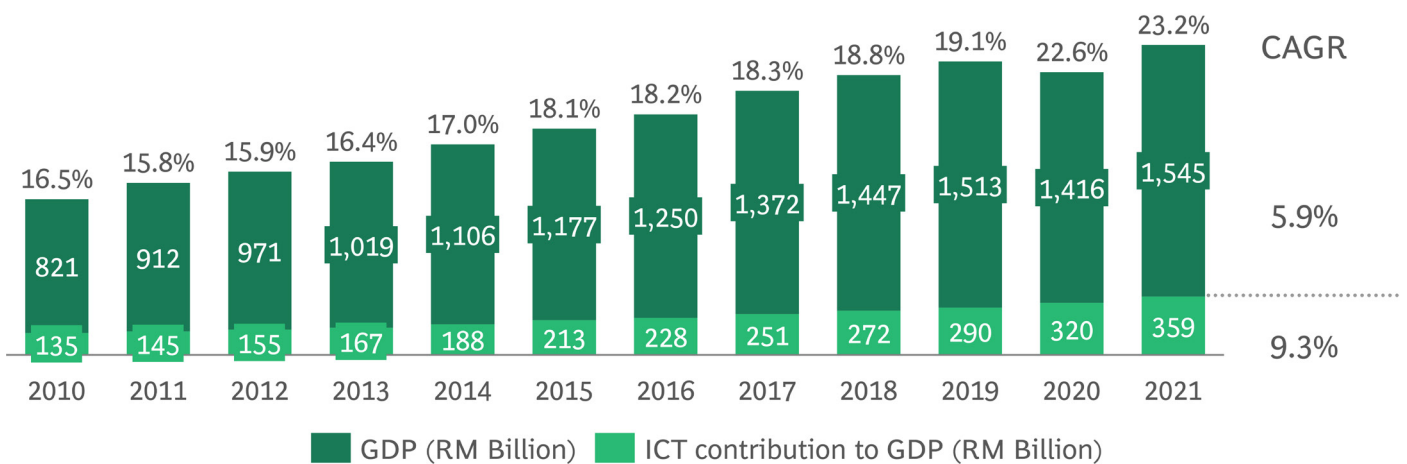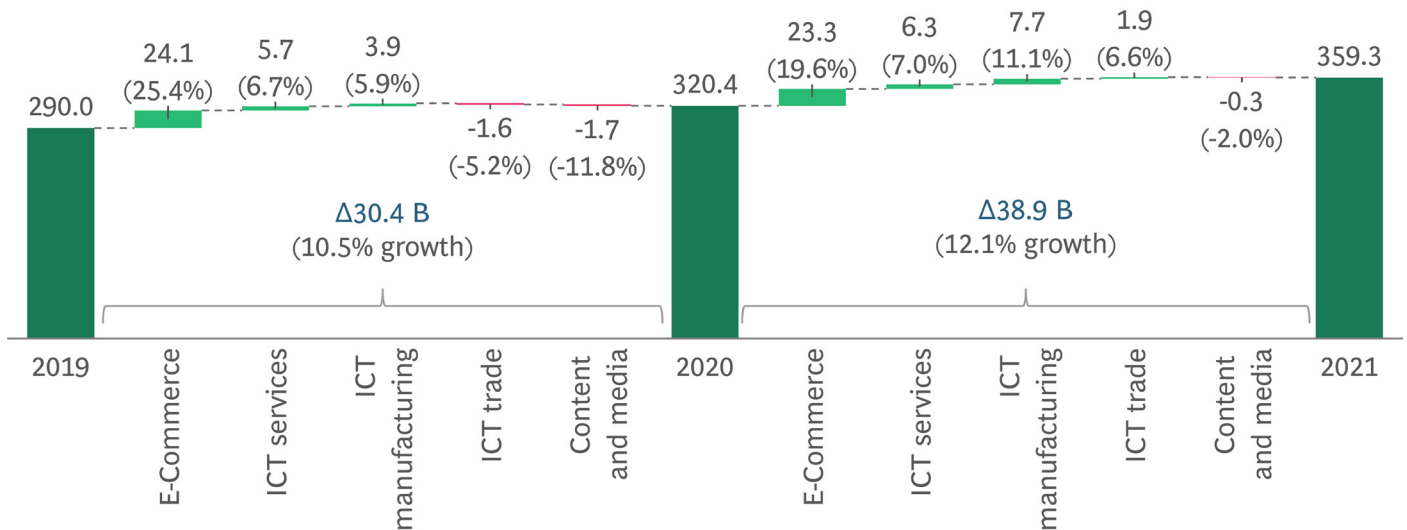Share of digital economy contribution to GDP, 2010-2021

Exhibit 4: Pandemic-induced growth of 12.1% in 2021 contributed largely by E-Commerce[1]

Annual change of digital sub-sectors to digital economy, RM billion (%), 2019–2021

1. Department of Statistics (DOSM) 2021, Information and Communication (ICT) Satellite Account; MDEC Research 2022

The Malaysian Government has launched various studies, programs, and initiatives to leverage the opportunities of the digital economy, with a particular focus on encouraging productivity gains and revenue growth for Malaysian businesses through digital transformation. These initiatives recognize that in a digital-first world, organizations and people are more connected than ever, with greater emphasis and interdependence on technology as an enabler of economy creation. Measuring digital transformation is vital to understanding the competitiveness and digital maturity of enterprises across the nation.

In 2022, MDEC piloted the National Business Digital Adoption Index (BDAI) to look at the rate of digital adoption in Malaysia's business landscape. The survey was rolled out to 1,000 Malaysian businesses nationwide to gain an understanding of the current digital adoption trends. The pilot BDAI serves as a national barometer of the state of digital transformation of businesses of all sizes across Malaysia, evaluating companies in three core categories—technology, digital investments, and enablers. It assesses nine elements and 25 parameters across these three categories, providing a holistic look at the rate of digital adoption.

The pilot BDAI revealed that Malaysian businesses, although largely computerized, could still improve digitalization to enhance productivity and unlock value. While large companies lead on digital adoption, there are still points of improvement for Malaysian businesses which must be considered.

- **Digital experience.** Digital experience measures the extent and scale of digital technology adoption towards bringing customer and operational excellence. Generally, across Malaysian businesses, the scale of adoption of collaboration tools as well as customer experience platforms can be improved. A large majority of small and medium businesses are not using any types of collaboration apps, and interact with customers primarily through in-person interactions.

- **Emerging technology.** Adoption of emerging technologies is an indication of digital innovation taking place in an organization. Emerging technologies should be considered by large companies to unlock further value, including generative AI, robotics and automation, and blockchain solutions. While IoT has the highest technology adoption across regions and company sizes, almost two-thirds of all the organizations surveyed did not adopt any emerging technologies.

- **People and talent.** Digital talent is a crucial enabler to the successful execution of digitalization. People and talent could also be enhanced in Malaysia, through developing in-house training capabilities, and strategically hiring talent to plug capability gaps. Generally, half of organizations (51%) say that they do not have a digital culture in place, however, they are open to develop it naturally as their business progresses.

Broadly speaking, large companies have adopted the right approach, developing a digital strategy, focusing on enablers, and then investing in effective digital technology. The pilot BDAI shows that large companies excel in their use of data and business intelligence tools to draw valuable insights, predict trends, prevent risk, and make better decisions. However, micro-, small-, and medium-sized enterprises (MSMEs) generally lag behind due to their limited ability and access to analyze business data.

MSMEs are a vital part of Malaysia's national economy, and will be a key driver to capture and unlock greater economic value through digital. MSMEs contribute over a third (37%) of gross domestic product (GDP), almost half (47%) of total employment, and just over 17% of all exports. Uplifting these enterprises through digital transformation provides a pathway to amplify their economic impact, enhancing their contribution to GDP and employment, and creating value for the nation.

The pilot BDAI study provides disaggregated insight into the relative performance of companies in Malaysia across company size, location, and industry of operation. It demonstrates that large companies have more mature digital capabilities, primarily due to a longer history of investment and larger budgets. [Exhibit 5.]

Across industry verticals, the manufacturing and services segments in Malaysia are the most enhanced industries in terms of digital maturity. [Exhibit 6.] However, they only marginally outperform other segments, as no single industry has a clear edge over the others. These two industries are slightly ahead of the curve in the use of digital tools and processes and data. This is largely due to the increasing use of automation and digital platforms within the business operations of such industries.

Geographically, the greatest share of advanced digital companies is in the Central Region. This region has strong performance across digital investments, enablers, and technology. Businesses in the Central Region also have a slight edge in their use of business applications and modernized processes. The East Coast Peninsular lags behind other regions, with low adoption of technology presenting a particular pain point. [Exhibit 7.]

Exhibit 5: Variations in digital maturity most pronounced between company sizes

Company Size	Technology						Digital Investments	Enablers		Total
	Digital Infrastructure & Connectedness	Digital Process & Application	Digital Experience	Data	Digital Innovation	Cyber-security	Digital Investment Strategy	People/Talent	Governance	
Large										**3.09**
Medium										2.21
Small										1.86
Micro										1.26
Total	2.45	2.12	1.57	2.11	1.59	1.80	2.49	2.31	2.39	

Exhibit 6: Manufacturing and Services industries are marginally more digitally mature than other sectors

Industry Verticals	Technology						Digital Investments	Enablers		Total
	Digital Infrastructure & Connectedness	Digital Process & Application	Digital Experience	Data	Digital Innovation	Cyber-security	Digital Investment Strategy	People/Talent	Governance	
Agriculture										2.10
Construction										2.17
Manufacturing										**2.26**
Mining & Quarrying										2.17
Services										**2.29**
Total	2.54	2.21	1.65	2.11	1.66	1.86	2.64	2.37	2.61	

Exhibit 7: Little variation in infrastructure and connectedness across regions, though Central Malaysia remains slightly more digitally mature

Region	Technology						Digital Investments	Enablers		Total
	Digital Infrastructure & Connectedness	Digital Process & Application	Digital Experience	Data	Digital Innovation	Cyber-security	Digital Investment Strategy	People/Talent	Governance	
Central										**2.15**
East Coast										2.05
East Malaysia										2.14
North										2.08
South										2.11
Total	2.45	2.14	1.57	2.09	1.59	1.82	2.52	2.30	2.38	

BDAI Heatmap Rating

Low Adoption — High Adoption

- Based on a rating between 0-100%
- Higher rating signifies a higher digital adoption rate
- Analysis segmented across Industry, Region and Company Size

Source: Pilot BDAI Survey , 2022, MDEC

Malaysia's largest companies are progressing well in their digital transformation efforts, but there is significant room to further accelerate adoption of digital technologies. The pilot BDAI study revealed that more than two-thirds (67%) of businesses have some form of tracking or key performance indicator (KPI) to measure digitization efforts. More than half (55%) of businesses also utilize social media platforms for their business operations. A higher majority of medium (68%) and micro (60%) businesses embrace social media for their operations. Encouragingly, four out of every five businesses also leverages some form of automation in their business operations, although the agriculture industry continues to show the lowest rate of automation.

The pilot BDAI identifies valuable foundations for Malaysia's future digital economy. It also provides a granular view of the areas in which Malaysian firms can gain a competitive edge, primarily through enhancing digital business operations. On skills and talent, just 9% of Malaysian businesses have implemented digital training at a company-wide level, revealing significant room for improvement. Almost two-thirds of Malaysian businesses (60%) do not use any cloud services, with the majority of these companies being MSMEs.

Malaysia's MSMEs are themselves presented with some important low-hanging fruits to accelerate digital adoption, including data, digital process and application, and cybersecurity.

- **Data.** Data collection offers a path to create a more informed business strategy. However, 62% of micro and 32% of small companies currently do not collect data. Adopting effective data storage and analytics tools offers a powerful opportunity to unlock business value through data-driven digital solutions.

- **Digital process and application.** Cloud solutions can provide access to cost-effective, agile digital tools for businesses, yet 90% of MSMEs currently do not use any cloud solutions. Cloud offers a path to adopting advanced information technology (IT) infrastructure and enterprise connectivity solutions.

- **Cybersecurity.** Strong cybersecurity means improved consumer confidence and less opportunity for digital business disruption. MSMEs should design appropriate data security policies, and explore custom security solutions fit for their business needs.

Following an accelerated digitalization journey in the last two years, Malaysian businesses have realized the true value of digital tools. Enhancing digital adoption in Malaysian businesses remains a top priority, as Malaysia seeks to expand the contribution of the digital economy towards national growth. MDEC will continue to provide insight and measure the state of business digital transformation, rolling out the BDAI survey on a larger scale. This will unlock further granularity on the digital strengths of Malaysian firms, as well as the strategic areas for improvement.

Building better with the Build For the Future framework

The Build for the Future (BFF) framework can help accelerate future-readiness for Malaysian enterprises. BFF is a propriety framework developed by BCG to assess the future-readiness of companies across the globe, responding to shifting macroeconomic conditions, technological disruption, and changing market dynamics. It was created on the basis of three years of detailed research, assessing over 2,500 companies globally. [Exhibit 8.]

Exhibit 8: Build for the Future leverages three years of longitudinal research across 2500+ companies

Leaders told us what they want to know – and we have the answers they need

" How can I build sustained competitive advantage in an ever-changing world?

" How are other leaders building core capabilities to position themselves for success?

" What portfolio choices should I make to compete, win and lead in my sector?
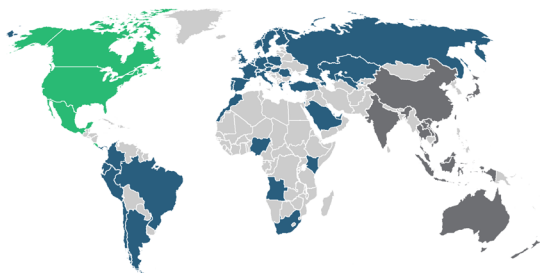
3+
years of
empirical research

2500+
CXO survey
respondents

100+
BCG-supported
digital transformations

50+
Capabilities
assessed

Region-specific insights to position clients within their key markets

Sector-specific portfolio implications and imperatives to compete and win

Companies building for the future sit in one of four categories—stagnating, emerging, scaling, and future-built. [Exhibit 9.] Three-quarters of companies globally are located in the stagnating or emerging cohort, in the early stages of future-readiness. Just 19% of companies are scaling, and only 6% can truly be considered future-built.

- **Stagnating.** Yet to get digital transformation right, with limited value creation.

- **Emerging.** Executed successful programmatic transformation, but challenges in effectively scaling across the organization.

- **Scaling.** Delivered multiple waves of successful digital transformation, now pivoting to innovation-led growth.

- **Future-built.** Undergoing continuous innovation at the leading edge of disruption via systematic build of necessary capabilities at scale

Exhibit 9: Companies building for the future typically sit in one of four maturity categories

◆ **Legacy Incumbents**
Traditional companies that have yet to scale digital across their organizations
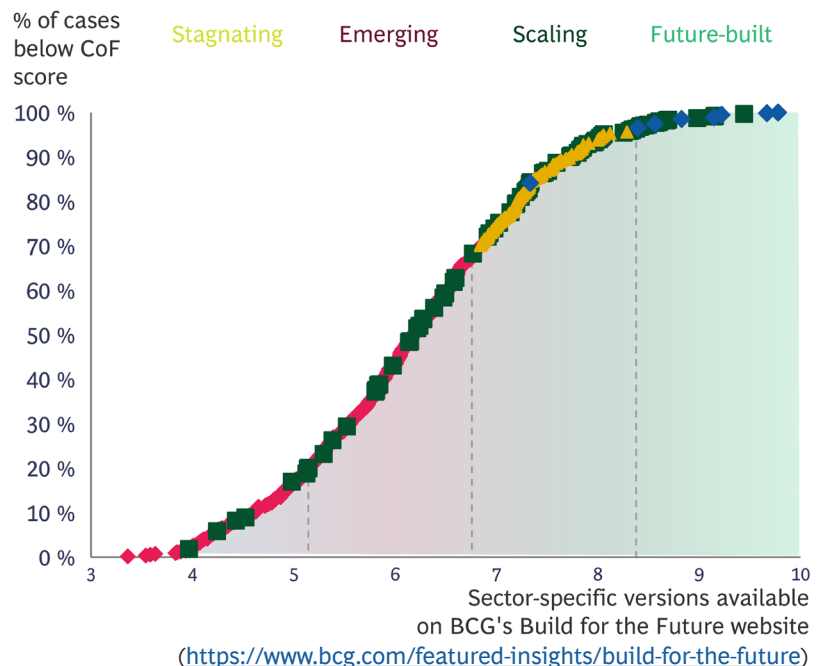
▲ **Digital Incumbents**
Traditional businesses that have digitally transformed, building digital capabilities

■ **Digital Natives**
Companies founded in the digital era, ranging from Salesforce to Spotify

◆ **Hyperscalers**
Largest digital natives, whose infrastructure and data confer major advantages

Sector-specific versions available on BCG's Build for the Future website (https://www.bcg.com/featured-insights/build-for-the-future)

Through its BFF framework analysis, BCG has identified six attributes shared by companies successfully building for the future. These six factors empower companies to seize new opportunities and move into high-growth markets.

- **Align leadership around a powerful purpose** that integrates sustainability and social-impact goals, building trust and transparency among stakeholders.

- **Develop a clear people advantage** in attracting, retaining, and developing world-class talent.

- **Institute an operating model to enable agility and resilience** to rapidly exploit market disruption and mitigate risks.

- **Establish an innovation-driven culture** to reimagine outcomes, and build new business models.

- **Migrate to modernized tech platforms** to enable fast, automated, and secure operations.

- **Embed AI for value in the organization** to drive scaled performance improvements.

The adoption of digital technologies and solutions was a critical success factor for financial and operational resilience during the COVID-19 pandemic. Companies that had built for the future and invested in new digital solutions recorded better outcomes for their business and employees during this challenging period.

Digital investments have been instrumental in creating economic spillovers, contributing significantly to national growth and value creation. Over the last five years, total investments by companies under MDEC's strategic national effort called Malaysia Digital (MD) have grown at 8% CAGR. This growth rate more than doubled in 2021 to 17%, reaching a value of approximately MYR46 billion (~US$10 billion). As global markets become increasingly connected through online platforms, digital businesses are capitalizing on the demand of foreign consumers, expanding their market reach, and exporting digital goods and services to previously untapped markets.

Why BFF is Important for Malaysian Companies

Analyzing the small group of companies further along on this digital journey reveals that they outperform their less digitally mature peers on numerous financial metrics. This includes total shareholder return, earnings before tax (EBT) uplift, revenue growth, and post-COVID TSR recovery rate. [Exhibit 10.]

These companies have also unlocked wider benefits. That includes increasing AI-related patent innovation by 8x, improving environmental, social, governance scores by 5x, and demonstrating improved people and talent operations by tripling their Glassdoor scores, as well as doubling their net-promoter scores.

Exhibit 10: The small group of companies further along the journey outperform on non-financial as well as financial measures

Future-ready

Scaling

Emerging

Total Shareholder Return (5y)	1.5x	0.9x	ESG score improvement	
EBIT Uplift (1y)	1.2x	1.8x	% of Companies with a Strong Glassdoor Rec.	
Revenue Growth (3y)	1.7x	1.2x	NPS improvement	
TSR recovery rate following COVID	1.0x	1.8x	AI-related patents granted/pending	

Scaling: 2.6x / 1.5x, 1.5x / 2.4x, 1.9x / 1.4x, 2.8x / 2.9x

Future-ready: 4.5x / 4.6x, 3.3x / 3.0x, 4.2x / 2.1x, 4.4x / 8.0x

Stagnating

Compared to Stagnating companies

Source: S&P Capital IQ; Refinitiv; Glassdoor; BCG ValueScience Center, financial data between 30 December 2017 and 30 December 2022; BCG Center for Growth & Innovation Analytics; BCG 2022 Company of the Future Survey, n=724

Malaysia's Build for the Future performance

In order to benchmark the BFF performance of Malaysian companies, BCG and MDEC have undertaken a survey of 18 companies across the business ecosystem. This survey dives deeper into firm-level digital maturity, and more accurately assess the current performance of Malaysian companies against their counterparts. Companies are scored on a scale of one to 10, with 10 being the highest score for digital capabilities.

Of the 18 companies who responded to this survey, eight were classified as incumbents (legacy or digital) and 10 can be classified as digital natives. The results reveal a fascinating picture of Malaysia's digital landscape, with four key findings [Exhibit 11.].

Exhibit 11: BCG BFF Survey of Malaysian Companies Summary

Survey observations

Falling behind global/regional curve

Low embedded AI adoption across the board

Incumbents lag digital natives, but all hope is not lost

Digital natives are not advancing as fast as they should

Calls to action

Calls to action are generalizable across the board, but the urgency of implementing these measures depends on stage of transformation (Stagnating – most urgent, Future-built – least urgent)

Calls to action according to each of the 6 BFF metrics:

- **Purposeful leadership** – aligning leadership around a corporate purpose
- **People advantage** – build your employee value proposition (incl. training, upskilling) to attract and retain the best digital talent
- **Agile operating model** – develop leadership and governance processes to be agile, supportive of fast iterative learning and risk-taking
- **Innovation-driven culture** – developing an entrepreneurial culture which underpins innovation
- **Modern tech & data platform** – drive business-led technology agenda which harnesses new technologies
- **Embedded AI** – begin developing embedded AI capabilities across the operational value chain
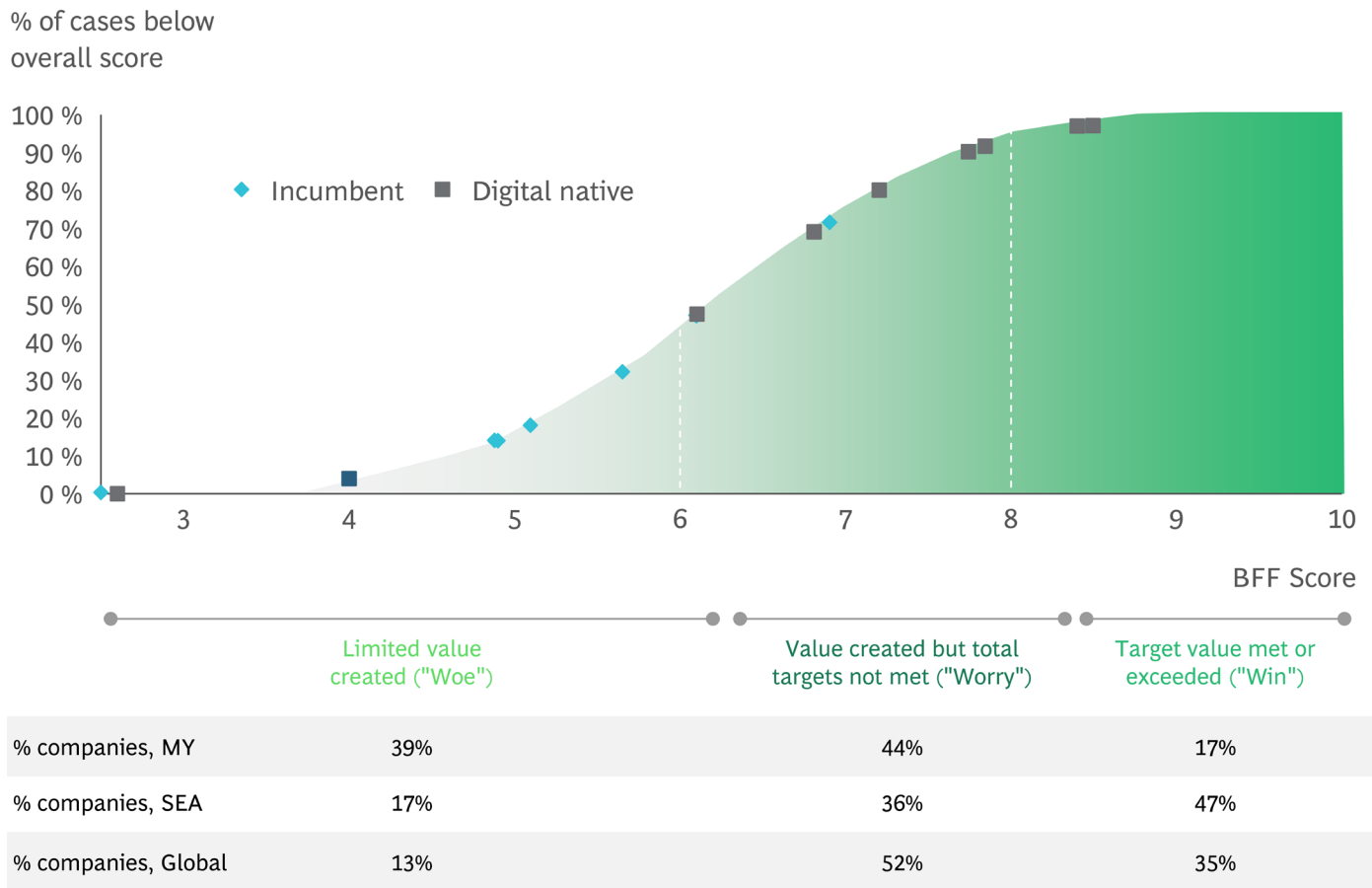
Source: BCG BFF survey 2023

1. Falling behind global/regional curve

Our survey of over 18 Malaysian companies incorporated insights from executives in a wide range of industries, including telecommunications, consumer goods, financial services, and more. It reveals progress on the digital journey, and the potential opportunity ahead for organizations in the country. Digital transformation in Southeast Asian companies is comparatively successful, with almost half (47%) of companies set up to successfully deliver on their digital transformation ambitions, compared with a figure of 35% globally. [Exhibit 12.] However, Malaysia is falling behind both global and regional averages, with only 17% of companies set up to successfully deliver on their digital transformation ambitions.

Exhibit 12: Malaysian companies progressing well but majority are not set up successfully to deliver digital transformation ambitions

% of cases below overall score

	Limited value created ("Woe")	Value created but total targets not met ("Worry")	Target value met or exceeded ("Win")
% companies, MY	39%	44%	17%
% companies, SEA	17%	36%	47%
% companies, Global	13%	52%	35%

Note: "Win Zone" = score >= 8; "Worry zone" = score 6-8; "Woe zone" = score <6
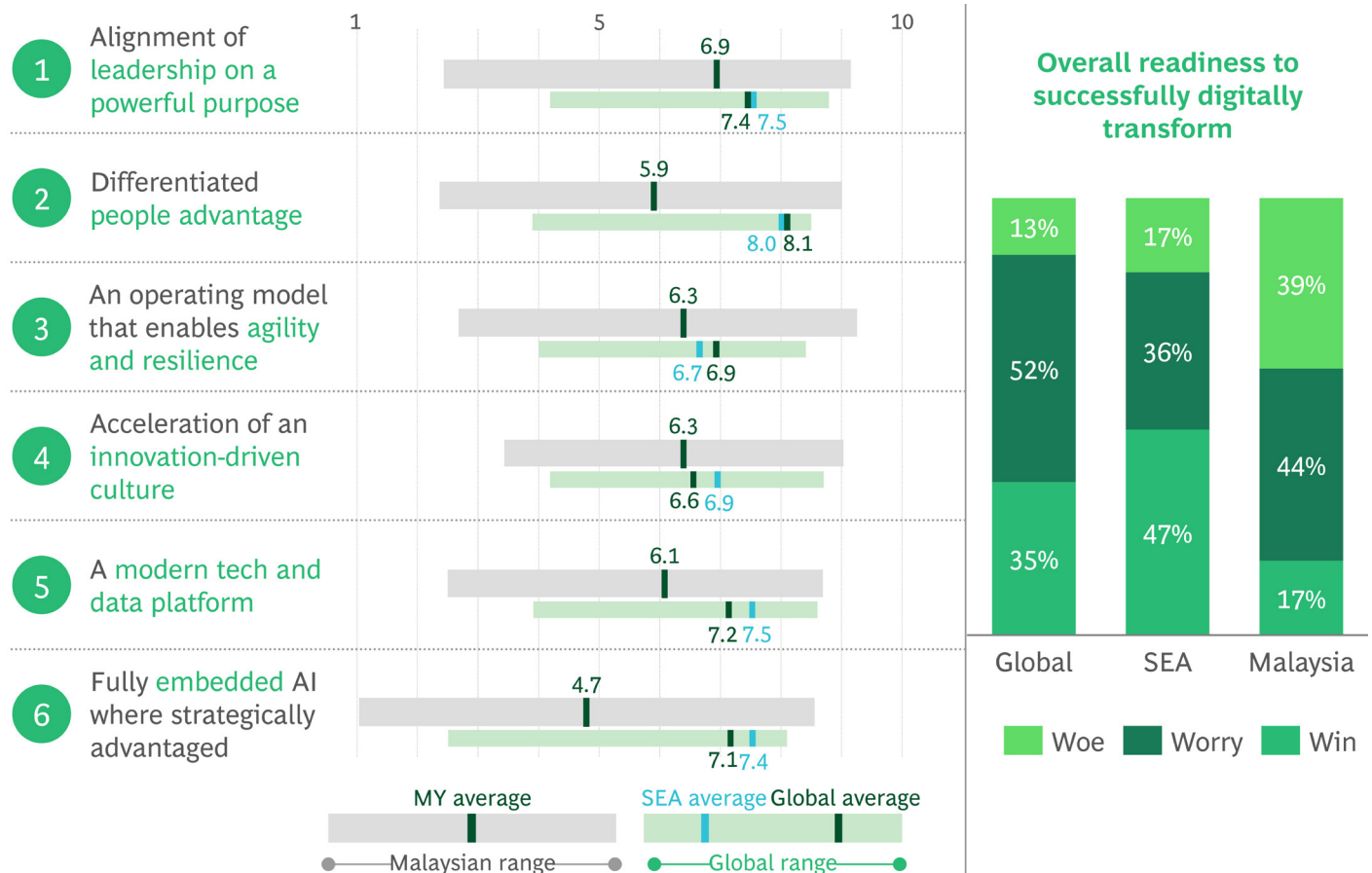
Source: BCG Build for the Future Survey 2022; n=18 for Malaysia

2. Urgent need to introduce and scale up embedded AI

Across both incumbents and digital natives, embedded AI adoption scored lowest. Malaysian respondents score worst on the Embedded AI category by a significant margin. On average, all respondents had an average score of 4.7, compared to SEA average of 7.1 and global average of 7.4 across all respondents, and a high of 5.6 for digital natives. The next-lowest category is People Advantage, with a full 1.2 points higher than for Embedded AI. [Exhibit 13.]

Exhibit 13: Malaysian companies behind global and SEA averages in all areas, especially in AI adoption

1 Alignment of leadership on a powerful purpose — 6.9 / 7.4 7.5

2 Differentiated people advantage — 5.9 / 8.0 8.1

3 An operating model that enables agility and resilience — 6.3 / 6.7 6.9

4 Acceleration of an innovation-driven culture — 6.3 / 6.6 6.9

5 A modern tech and data platform — 6.1 / 7.2 7.5

6 Fully embedded AI where strategically advantaged — 4.7 / 7.1 7.4

MY average | SEA average | Global average
Malaysian range | Global range

Overall readiness to successfully digitally transform

	Global	SEA	Malaysia
Woe	13%	17%	39%
Worry	52%	36%	44%
Win	35%	47%	17%

Legend: Woe | Worry | Win

Note: "Win Zone" = score >= 8; "Worry zone" = score 6-8; "Woe zone" = score <6

Source: BCG Build for the Future Survey 2022; n=18 for Malaysia

AI adoption is a critical lever to drive effective digitization and innovation, with clear examples of this across the business ecosystem.

In one example, a global consumer goods manufacturer is considering using generative AI in business development to conceive of new product ideas and promotional campaigns. In a demonstration, the AI tool simulated customer segmentation, generated ideas for new products, and mapped out potential social media promotions. The tool produced focus group guides and simulated how target customer segments might answer questions to predict possible feedback.

Analysis reveals that five times as many advanced companies are scaling AI solutions as opposed to running pilots at a subscale level. BCG's research shows advanced companies invest twice as much in AI solutions, and deliver 3.5x greater return on investment (ROI). Three times as many advanced companies have stronger capabilities in the operational value chain, for example, smart factories, automated maintenance, and Industry 4.0.

This shortfall in embedded AI maturity is not a problem limited to Malaysia. Our latest research shows that 46% of companies have not built strong digital foundations, and none of these companies had strong AI capabilities. Only 12% of companies have achieved strong digital and AI maturity, and are positioned to capitalize on the next wave of advances. Therefore, embedding AI into operations now would give innovators a significant head start over competitors.

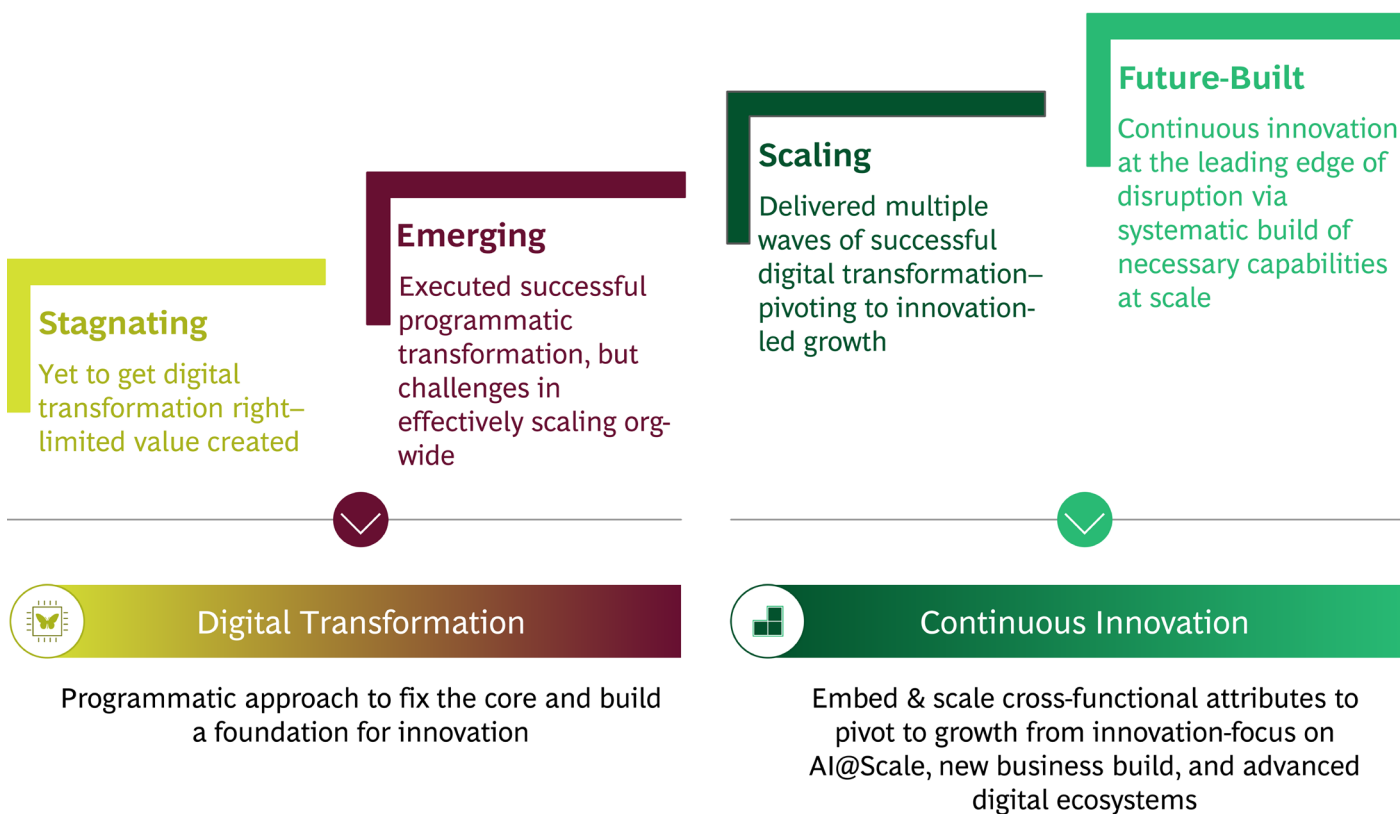# 3. Incumbents lag digital natives, but all hope is not lost

On average, the BFF score of incumbents in Malaysia is 1.5 points lower than their digital native counterparts (5.3 vs 6.8). Incumbents score lower across all six attributes compared to digital natives, with Embedded AI uptake having the largest difference (3.6 vs 5.6). The next two lowest-scoring categories for incumbents are People Advantage (5.0) and Modern Tech & Data Platform (5.0). Incumbents score best in the Purposeful Leadership category (6.4), but trail digital natives by 0.9 points. However, this still represents impressive performance, as natives have a large advantage. Digital natives typically have a nimble product ethos and often benefit from an engaged, charismatic founder playing a hyperactive role in the company and culture.

That said, there are important signs of optimism for Malaysia's evolving landscape. While Malaysian incumbents all fall within the stagnating or emerging categories—equally split between the two—the gap with digital natives is not significant, with digital natives also spread across the four transformation stages. This means that with the right digital transformation program in place, incumbents are positioned to close the gap with digital natives. In fact, five of the eight incumbents have scores that outperform two of the assessed digital natives.

The relatively small gap between natives and incumbents provides a realistic opportunity to catch up—if they start implementing the first steps of digital transformation now. [Exhibit 14.] Some important next steps to bridge this gap are highlighted in the recommendation section of this report.

Exhibit 14: Delivering on this imperative is a multi-stage journey enabled by two distinct approaches

Stagnating

Yet to get digital transformation right–limited value created

Emerging

Executed successful programmatic transformation, but challenges in effectively scaling org-wide

Scaling

Delivered multiple waves of successful digital transformation–pivoting to innovation-led growth

Future-Built

Continuous innovation at the leading edge of disruption via systematic build of necessary capabilities at scale

Digital Transformation

Programmatic approach to fix the core and build a foundation for innovation

Continuous Innovation

Embed & scale cross-functional attributes to pivot to growth from innovation-focus on AI@Scale, new business build, and advanced digital ecosystems

4. Digital natives are not growing as fast as they should, and are at risk of being overtaken by incumbent players, let alone advancing to hyperscaler size

While digital natives enjoy certain advantages over their more traditional contemporaries, this does not mean they can afford to be complacent. The 10 digital natives surveyed are well spread out across our four sectors—two each in the stagnating and emerging stages, and three each in the scaling, and future-built stages.

While this conforms with the global trend of digital natives being further along the digital transformation journey, the unusual number of digital natives assessed as being in stagnating and emerging stages represents some cause for concern. [Exhibit 15.]

Exhibit 15: Most Malaysian incumbents are stagnating or emerging; digital natives spread out across all stages

% of cases below
overall score
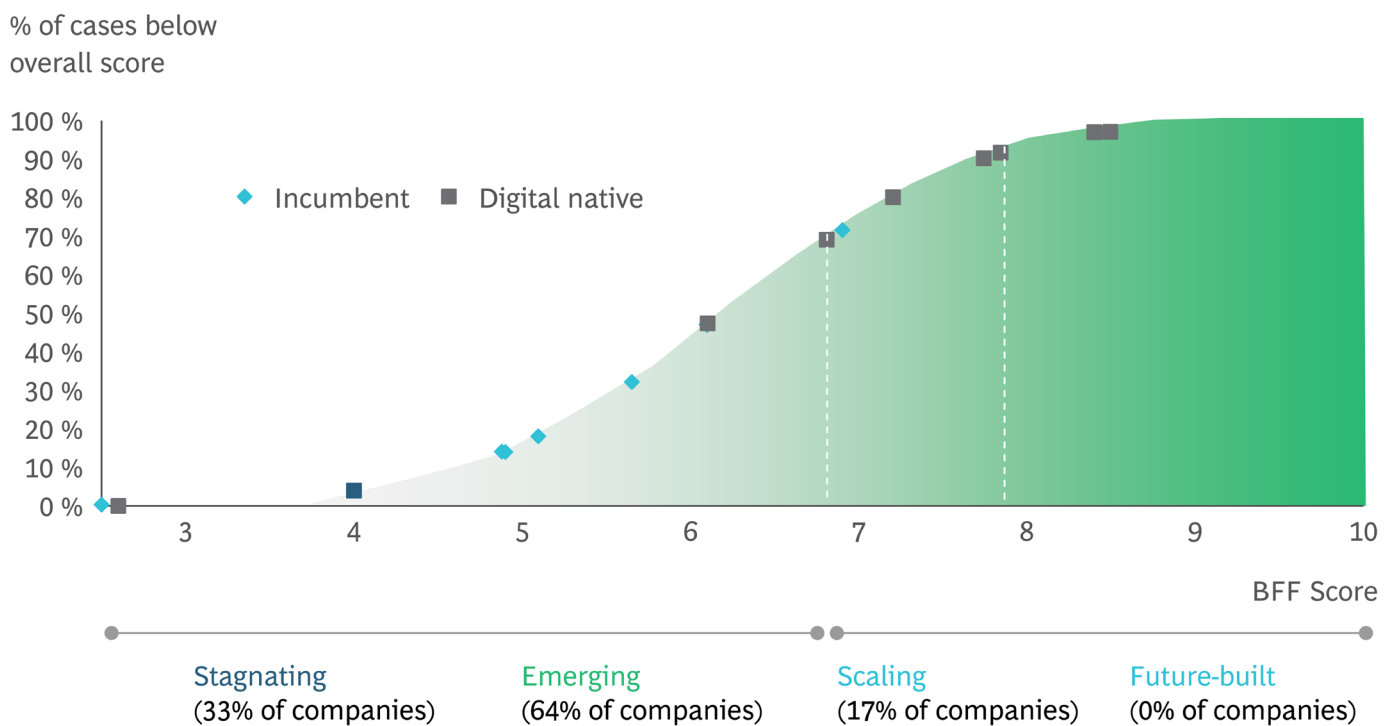
Source: BCG Build for the Future Survey 2022; n=18 for Malaysia

Embedded AI adoption is again the weakest scoring category, with an average score of 5.6. This is followed by People Advantage (6.7) and Agile Operating Model (6.7). Malaysia's digital natives score well in Purposeful Leadership (7.3) and Innovation-driven Culture (7.1),

though this can be traced to the nature of digital natives retaining the influence of their founders. Whether natives can retain this score as organizational and technological entropy increases—triggered by acquisitions, leadership changes, and similar—remains to be seen.

CALL TO ACTION

Delivering on the digital adoption imperative is a multi-stage journey enabled by two distinct approaches. Stagnating and emerging companies can be said to be in early digital transformation stages, requiring a programmatic approach to fix the core and build a foundation for future innovation. Scaling and future-built organizations are at the stage of continuous innovation, embedding and scaling cross-functional attributes to leverage AI at scale, new business build, and advanced digital ecosystems. [Exhibit 16.]

The urgency in which each company implements digital transformation also depends on the stage of transformation they are in, as well as their scoring in each individual attribute.

Stagnating and emerging players. These players should act with urgency, or risk being left behind. Premature declarations of success are a recipe for long-term pain, and

risk paving a path to failure. Act now, and commit deeply to digital transformation.

Quickly follow digital incumbents in implementing a digital transformation that will drive long-term value and develop digital capabilities for growth. Take coordinated initial steps on all attributes highlighted in the BFF analysis, and use this as a framework to guide growth.

Scaling and future-built players. These players are well positioned, but they cannot afford to be complacent and risk being overtaken by ambitious incumbents. Focus on the six attributes of success, and continue to drive forward towards becoming what BCG refers to as a truly 'bionic' company.

Exhibit 16: Making it real - What building for the future looks like

	From Stagnating to **Emerging**	From Emerging to **Scaling**	From Scaling to **Future-Built**
	Building foundational capabilities	Building advanced capabilities	Continual innovation journey
What they have done	• Built mechanisms to orchestrate customer experience across channels • Transversal data platform • Redesigned operating model for accelerated digital delivery	• New tech stack for consumer & enterprise businesses • Developed full suite of integrated data products leveraging AI/ML to optimize operations • Org-wide simplification of applications and products	• 10+ year digital journey to expand to key adjacencies (E2E human and tech transformation) • Agile org transformation with deployment of platform teams at scale to unlock D2C model
What they are doing now	• Individual point solution projects (e.g., automation, drones) to lay foundation for transformation • Targeted service digitization to improve customer experience and reduce cost	• Product offering simplification to digitize experiences • Simplified org structure & ways of working to empower teams • Cost-reduction and portfolio mgmt focus to streamline operations • AI@Scale empowering front-line staff to shift from urgent problem solving to analytics-backed decision making	• Continual investment in emerging tech (e.g, early adoption of cloud computing) • Recurring R&D investment • Internal innovation strategy • Proactive capital management to maximize headroom and reduce risk

There are some key next steps which should be embraced, based on the six core BFF attributes.

Purposeful Leadership
- Align leadership around a corporate purpose
- Empower leadership and build depth beyond the founder

People Advantage
- Build your employee value proposition to be compellingly attractive for the best digital talent
- Place greater emphasis on training and upskilling to drive development and retention

Agile Operating Model
- Develop your leadership and governance processes to be agile, supportive of fast iterative learning, and risk-taking
- Try not to make trade-offs between speed of innovation and building platforms to scale innovation
- Address incentives and align with measures which drive value in the business

Innovation-driven Culture
- Commit to developing an entrepreneurial culture which underpins innovation that permeates an organization top-to-bottom, not just leadership

Modern Tech & Data Platform
- Drive a business-led technology agenda which harnesses new technologies, for example cloud-based workloads, open architectures, rapid innovation in the customer experience layer, and democratized data
- Do not compromise on technology and data governance to prevent fragmented data and technology debt

Embedded AI
- Begin developing embedded AI capabilities across the operational value chain

MDEC initiatives to support growth of digital economy

In a time where rapid developments are transforming the business landscape, findings from the BDAI and BFF surveys are increasingly valuable to grow the digital ecosystem. Understanding the scale and extent of digitalization, coupled with organizational-level analysis benchmarked against counterpart competitors, is a crucial foundation to inform both public and private interventions.

Recognizing the prevalence of digital technologies in economic development, the Government of Malaysia, through MDEC, intends to drive economic participation by every segment of industry through digitalization and adoption of digital platforms, emerging technologies, and innovative business models.

MDEC carries the mission to drive the digital economy through catalytic high-impact initiatives, backed by strategic and sustainable investments. Various interventions and programs are offered across the entire digital economy ecosystem to drive high-value digital investments, provide a launchpad for domestic tech companies into ASEAN and beyond, drive digital adoption to grow local businesses, create a digital-savvy society, and facilitate a business-friendly and sustainable digital economy ecosystem.

Malaysia Digital (MD) is the national strategic initiative, driven by MDEC, to encourage companies, talents and investment while enabling Malaysian businesses to play a leading part in the global digital revolution and digital economy. The initiative creates substantial digital economic spill-over through equitable access to digital tools, knowledge, and income opportunities across Malaysia.

Through the Program Mangkin Malaysia Digital (PEMANGKIN) projects, MDEC seeks to catalyze large-scale creation of digital value across promoted sectors, including services, finance, agriculture, tourism, trade, creative content, and the Islamic economy. These PEMANGKIN projects drive the adoption of digital technologies to grow local businesses, promoting the use of ten emerging technological enablers, including AI, robotics, dronetech, blockchain, integrated circuits (ICs) cloud, cybersecurity, IoT, extended reality, and advance network connectivity.

Powering up Malaysia's future digital economy

Digital transformation is set to supercharge Malaysia's future economy, but companies must act now to unlock this strategic advantage. BCG's BFF framework provides a platform to inform these efforts, offering a benchmark for success and best practice guidance. It is framed by the six key levers of success—purposeful leadership, people advantage, agile operating model, innovation-driven culture, and modern technology and data platforms.

Malaysia's own foundations are strong, but there are some clear gaps that stakeholders must address in order to unlock the value of digital transformation. MDEC and the Malaysian Government have put in place valuable initiatives to spur this development, with encouraging signs of adoption and growth for the future.

In a shifting business landscape, businesses must adapt to these new pillars of competitive advantage. Those who do so are on track to deliver more effective, profitable, and resilient businesses. Those who don't, run the risk of being left behind in an increasingly competitive and fast-moving digital business ecosystem.

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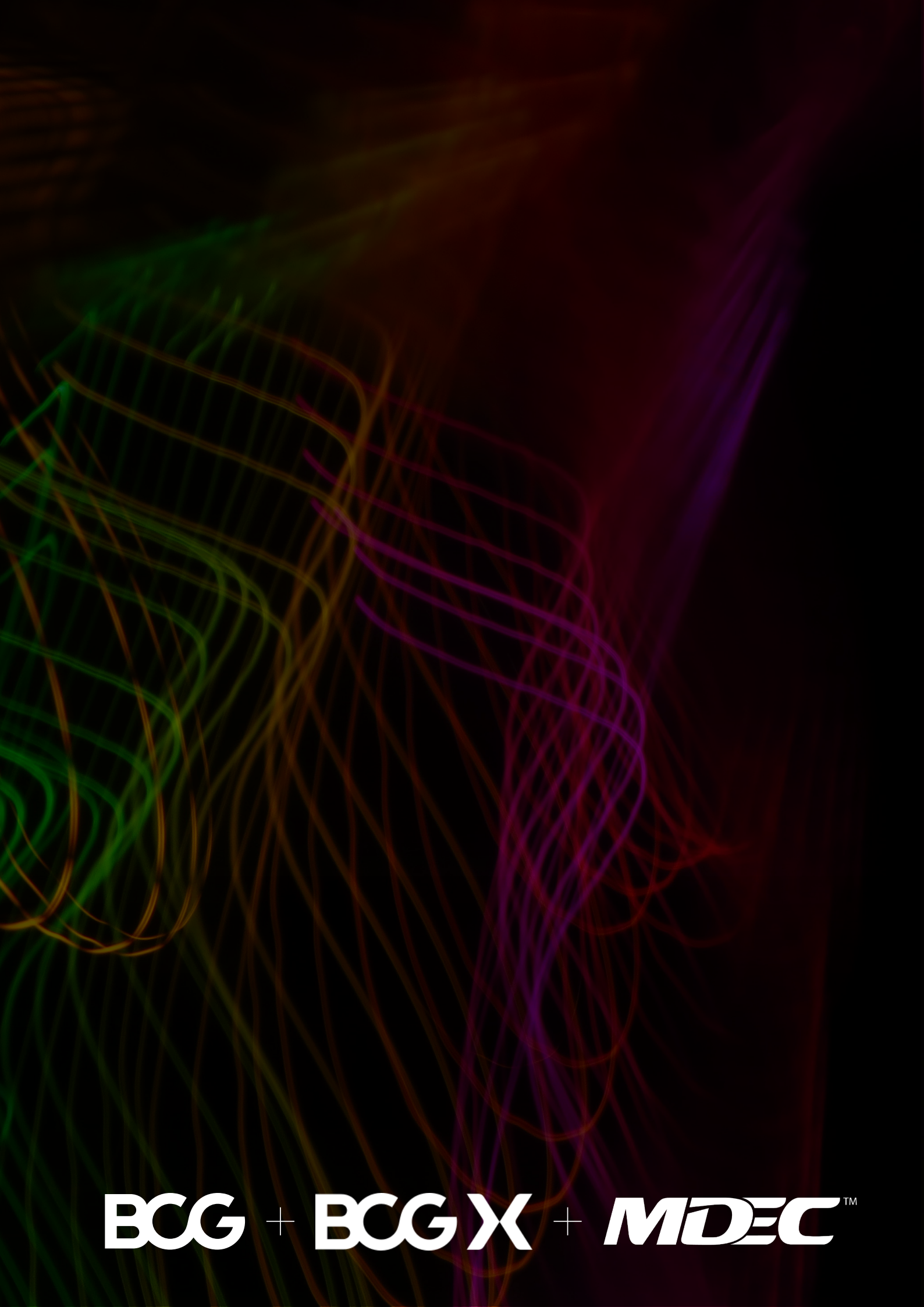
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