



WHITE PAPER

SMEs striving for Digital Transformation amidst many hurdles

A look at the SME digital transformation journey in South East Asia



Introduction

How prepared are SMEs in South East Asia today for digital transformation? The white paper aims to answer this question by looking at where SMEs in SEA stand today, on their digital transformation journey.

It is important to take a holistic view of digital transformation in SMEs, looking at the key business challenges these organisations face, their awareness and understanding of digital transformation, drivers and barriers as well as current level of adoption.

The findings in this white paper are based on the research conducted by Intuit Research Consultants interviewing 864 SMEs across the 6 SEA countries.

SMEs representing a good mix of business activities such as Manufacturing, Retail, Hotels & Restaurants, F&B, Automotive and allied, Engineering, Logistics and Services (including Financial services, professional services) were interviewed.

Business challenges do vary across countries

'Managing growth amidst competition' (34% SMEs) is the biggest challenge across markets, but other challenges vary across markets. The key business challenges are a function of the importance and contribution of various business activities (sectors) in each market and the impact of these challenges on these sectors.



Key business challenges faced by the organisation today

Overall across SEA (n = 864 SMEs)

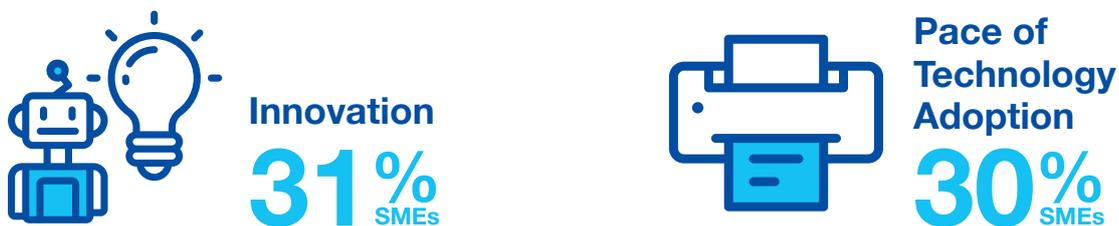


Figure 1: Key Business Challenges

Innovation is a bigger challenge in Indonesia (48% SMEs in Indonesia) while managing Customer Experience (51% SMEs in the Philippines) is a key challenge for SMEs in Philippines.

'Rising cost of labour and raw material' is a big challenge in Philippines (50% SMEs), Indonesia (36% SMEs), Malaysia (29% SMEs), and Singapore (23% SMEs) to a certain extent. A senior manager at an auto spare parts SME said, "Labour costs especially for the entry level employees working in our unit, have increased twice in almost two years". The sentiments expressed by manufacturing units in Indonesia were similar, although it was driven by the lack of skill sets and the gap in supply vs. demand of this skill set that is shoring the cost.

SMEs in Indonesia (43% SMEs), Vietnam (35% SMEs) and Thailand (25% SMEs) believe managing pace of technology is one of their key challenges especially with ageing staff that works on shop floor.

Flexibility in scaling up the operations or scaling it down is a key challenge for SMEs in Thailand and Singapore, and this is driven by the SMEs in Manufacturing, Restaurants and Hotels business.

A smaller proportion of SMEs in Malaysia and Thailand feel ensuring 'Regulation Compliance' is a key challenge as new regulations, standards emerge faster than before. A manager from a manufacturing plant in Malaysia highlighted, *"The amount of compliance procedures and documentation needed - be it ISO readiness, IT compliance, or regulated raw material and ingredients we import, is a task in itself"*.

While 'Talent Management' is on the radar of many SMEs as a challenge across markets, Vietnam flags this as a big challenge (34% SMEs). Both manufacturing and services SMEs highlighted the lack of trained skill set, in the wake of more and more businesses expanding or venturing in Tier 2 cities.

A senior manager working in mid-sized hotel said *"Expectations from the younger employees is very different than those working for a long time. The younger tend to expect a pay rise almost every six months. The amount of time and resources spent on their training and the efforts to retain them has become difficult"*.

Digital transformation adoption is low across South East Asian SMEs

SMEs in the region have barely kicked-off their digital transformation journey. The level of adoption varies across business sectors, but adoption is generally low across markets.



80% of SMEs are aware of the 'Digital Transformation' concept.

Figure 2: Digital transformation awareness

One in four SMEs say they lag behind in adopting digital transformation. While they are aware of 'Digital Transformation' as a concept they barely understand it any further. Another 55% of SMEs believe they have just begun their journey of digital transformation.

Current state of digital transformation



Figure 3: State of digital transformation

Compared to other South East Asian markets namely Indonesia, Thailand and Malaysia, Singapore SMEs seem to understand the concept of digital transformation better. One in three SMEs in Singapore (33%) state they lag behind other developed countries in digital transformation and have a long way to go.

19% of SMEs have started digital transformation in one or more departments within their organisation. The adoption figure is similar across markets, and across different business sectors with no particular business sector leapfrogging others in their digital transformation journey.

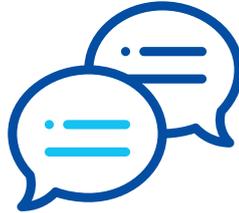
Among these 19% SMEs that have begun the journey already, departments such as Marketing and Sales, Customer Interaction and Servicing processes lead the process. This is true for most markets except Thailand.

Digital transformation across business processes



Marketing and Sales

58%
SMEs



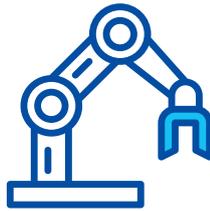
Customer Interaction and Servicing

54%
SMEs



Innovation/
Product
Development

43%
SMEs



Production/
Manufacturing

37%
SMEs



Training
and Skill
Development

35%
SMEs

Figure 4: Digital Transformation across business processes in SEA

In Thailand more businesses have begun their digital transformation journey in Innovation or product development and Production/Manufacturing departments.

With a very sporadic adoption of digital transformation across different business processes/ departments, only 7% of all SMEs in SEA are able to take a real time action across all departments.

Though the current adoption of digital transformation is low, the positive news for the SEA region is that four out of five SMEs believe that Digital Transformation will improve business performance including customer experience. Businesses are embracing the idea of transformation per se.

Use of 'Large Format Printers' is one such step towards digital transformation. Small scale textile design businesses value the use of large-scale printing, for small orders which would have been cost prohibitive using analog printing technologies.

Ease of use and printing (for 74% SMEs), and needing less water and colour (for 78% SMEs) are the top drivers for SMEs to use large format printing technology instead of analog printing. For businesses that have small batches for printing such as customised designs on fabrics, or designer clothing, large format printers have opened up a new avenue. 65% SMEs see ability to print in small batches as the key reason why they prefer a large format printer over analog printing solutions.

This is highlighted aptly by the comments given by the owner of a mid-sized textile manufacturing company operating in two locations in Indonesia “We know digital transformation will help us get a real time read on what is happening across our business, while giving us the ability to take actions real time”.

Another interesting development on the horizon in the region is the use of Interactive projectors. This technology is improving collaboration within and across businesses. Ability to interact with documents (78% SMEs) and the ability to collaborate (74% SMEs) are top drivers for choice of projector technology. This technology is still in infancy as very few SMEs surveyed claim to interactive projectors.

Businesses that need to impart training quite frequently to staff find it very effective. “We do not need to wait for our lead trainer to visit multiple locations, instead we can now train our staff within a few days after the launch of a new product, service or even an upgraded version of our product. The time to market has reduced dramatically” said a 140-employee industrial equipment company business in Malaysia.

SMEs that have staff working across locations and needing to collaborate on a regular basis also see this a very effective way of improving productivity. “Teams working across three locations can now come together, work simultaneously and collaborate so easily” said a mid-sized application developer company in Philippines.



Figure 5: Digital Transformation perception

Over 80% of SMEs in the retail sector believe ability to connect with inventory in real time, connecting with cloud and performing data analysis and integrating with other work processes drives the choice of latest point of sales equipment including POS printers. While SMEs are taking baby steps transforming themselves, Government does have a very critical role to play.

55% of SMEs believe that digital transformation in their country would work if their Government supports these SMEs (be it in the form of tax benefits or cultivating the right ecosystem). In countries such as Singapore, where the Gov. has been more vocal and proactive creating transformation road maps, the efforts need to continue as indicated by many SMEs.

Cost of deployment, and lack of skill sets seen as key hurdles

The battle for digital transformation is not an easy one for South East Asian SMEs. Multiple hurdles need to be overcome, some of them are real issues that would need more time, while a few others are driven legacy perceptions and lack of understanding of what digital transformation truly encompasses.

Upfront cost of new tools and technology is the most common business challenge across all SMEs (63% SMEs). *“SMEs don’t have a huge budget for business transformation projects including digital transformation. We can only look at it in a piecemeal manner, unlike larger businesses. We just cannot afford a big bang deployment. But a modular approach is a sure recipe for cost escalation.”* – A mid-sized manufacturing company in Thailand, explaining a key hurdle being the upfront cost of tools and technology deployment for an organisation wide digital transformation.

Lack of knowledge and skillsets within the organisation (51% SMEs) is the second common hurdle across SMEs. When probed further it is clear that lack of knowledge is a concern, for both the in-house skillsets as well as third party skill sets that help crafting and deploying a digital transformation strategy. There is a lack of strong ecosystem. Skillsets are trickling down from the Enterprise ecosystem into the SME ecosystems, but this process is too slow and that of a hit and miss.

“There are not many local experts or system integrators who can handhold my organisation during our digital transformation journey. The ones which are good work primarily with Enterprises or large MNCs. Such consultants are not interested in working with smaller firms like ours. We have to do with whatever skill sets we have in-house, which is quite frustrating at times. It is like taking two steps forward and one step back”.

Replacing old systems and processes is a key challenge for a larger proportion of SMEs in the Philippines (60% SMEs), this is especially true among F&B SMEs and mid- sized Manufacturing SMEs.

On the other hand, security and customer data leaks seem a bigger challenge for SMEs in Indonesia and Philippines (52% SMEs). Lack of strongly laid policies among SMEs for handling customer data is a challenge.

The owner of a mid-sized logistics company says *“We are worried about what will happen when all of the customer data sits online and interacts with all other touch points. My organisation is not geared fully towards data privacy and security. Sensitive information which is left unguarded can be very costly for my organisation”.* An indication that cyber security firms need to work far more closely with digital transformation experts.

Challenges for Digital Transformation

						
 Upfront Cost of New Tools and Technology	✓	✓	✓	✓	✓	✓
 Lack and Knowledge and Skills			✓	✓	✓	✓
 Replacing Old Processes and Systems	✓					
 Security and Privacy of Customer Data		✓				

Figure 6: Top challenges for digital transformation

Data privacy and security are not biggest hurdles for many businesses in Philippines, Thailand and Malaysia yet, but within the near future when data privacy laws become more stringent and strictly implemented, this will become a bigger challenge for SMEs.

Stronger ecosystem needed for manufacturing transformation

A large portion of SMEs in the manufacturing sector are still in the Industry 2.0 phase. Moving to Industry 4.0 is quite some distance away for many SMEs in the SEA region.

Between 8% to 10% of SMEs have deployed some form of robotics solutions in their manufacturing facilities, but a large chunk of SMEs in manufacturing sector in region are still heavily human labour oriented.

SMEs that lead in robotics deployment are primarily in the packaging, assembly (automotive spares or allied), and food & beverage sectors.



Cost of Deployment

79%
SMEs



Retraining Employees

67%
SMEs



Lack of Local SI's

67%
SMEs

Figure 7: Challenges for robotics deployment

Cost of deployment (a common thread from digital transformation) is the biggest hurdle for SMEs in deploying robotics.

A senior manufacturing lead for a food packaging unit in Indonesia gave details of their robotics evaluation experience. *“While a robotic arm today costs as low as 12,000 to 15,000 USD, the cost of deploying the full working system and integrated this with our assembly line can be six to seven times the robotic cost”*. The reality of investments may be slightly different, but there is definitely a lack of strong local system integration support.

Lack of trust in local system integrators remain a key challenge in the region. SMEs believe SI's are not ready to localise the solution that is industry or sector specific; rather they stick with tested global solution that is geared towards the developed western markets.

Skillsets for operating these robots in the region is also low across the SEA region. While countries like Singapore have developed university level curriculum to generate more skill sets, there is a general sense across the region that skill sets are too few and costly. This concern is stronger in markets such as Indonesia, Malaysia and Vietnam.

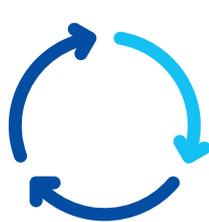
Top three reasons that are driving SMEs to pilot and deploy robotics are Speed (85% SMEs) & Productivity (81% SMEs), Consistency and Scalability (80% SMEs). More than eight out of ten manufacturing SMEs rate these three as top drivers for robotics deployment.

1



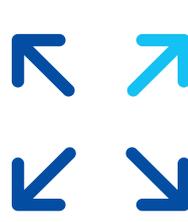
Speed and Productivity

2



Consistency

3



Scalability

Figure 8: Top drivers of robotics solutions

“We realised within the first few months of our deployment, that robotics gives us a huge advantage when it comes to precision and consistency. Experienced employees at shop floor level are difficult to scale-up especially in a 24 x7 scenario. The time needed to train new staff is just not worth the effort.”

– said the head of a 130-employee manufacturing company in Thailand.

Increasing cost of labour especially in Tier 1 cities, and lack of mid-level skill sets is a growing concern. Ability to produce in small batches is also a key driver for a small proportion of SMEs who do not have a sustained revenue stream and need to realign their production often.

New development in robotics, where robots are able to work together and closer with people is a welcome news for a larger set of SMEs who plan to evaluate a robotic solution. What is clear is SMEs do not fear robotics or technology (that’s a myth). Over 70% SMEs think, ability to produce in small batches, new robots working together with employees, and smaller space requirement is driving them to think of robotics solutions.

One other technology that is on the radar of some industries is ‘Smart Glasses’. The ability of Smart Glasses to mirror or relay what is seen by an employee on the site with someone in a remote location, be it expert or his colleagues is very effective. Ability of Smart Glasses to integrate with back end applications helps employees be more productive and effective in doing certain tasks that otherwise are prone to human errors.

While the penetration of this technology is still quite low, over half the SMEs in logistics and manufacturing see this as transformation. The commercial applications of this technology are still emerging and yet to be fully exploited. But a technology such as Smart Glasses is seen very effective in improving productivity, reducing errors (logistics) and in taking real time actions (using experts sitting in remote location that cannot reach remote sites).

Increasing awareness of eco- friendly digital solutions

Issues such as hardware footprint or technology products that have lower impact on environment show growing awareness among SMEs. 70% SMEs indicated they would prefer an office printer that is environment friendly (consumes less energy and have lower impact on health such as dust particles and heat). Use of inks that are more sustainable and less harmful to environment is another such area SMEs are concerned about. Using large format printers instead of analog printers that use less water and ink while printing is yet another way SMEs are showing growing improving eco-friendly behaviour.

Use of collaboration tools such as interactive projectors that helps optimise waste of natural resources are on the radar of a small proportion of SMEs. And this trend would increase over the new few years especially as more eco-friendly solutions start becoming available.

Indigenous solutions keep SMEs competitive

What they lack in true digital transformation, these SMEs in South East Asia make up by being very creative. Small indigenous piece meal solutions can never substitute the effects of full-scale digital transformation; but such innovative solutions do keep SMEs in the region competitive.

Using iPads to collect real time feedback from customers on the new ice cream flavour they would like to have, immediately taking pre- orders and integrating this information with their production and procurement process is definitely a creative way to bypass a fully integrated business process.

Another example is using colour labels for displaying interesting and personalised messages to inform customers about the ingredients, or promotions are small yet effective examples of improving customer experience.

SMEs are aware that it would not be easy to connect their siloed business processes. Perhaps recognising this bottleneck drives them to be creative in using resources in a cost-effective way to be more productive. Such digitisation and productivity gains are small yet critical steps towards true digital transformation.

SMEs especially in the retail and hospitality sector are using or buying faster, technologically advanced point of sales printers. Over 80% SMEs believe POS printers that connect with multiple devices, connect with back end retail applications hosted in the cloud do have an impact in improving customer experience. Yet another interesting trend in the region.

Creating and nurturing a digital transformation ecosystem (expertise in deployment, skillsets, and sector specific value propositions) can expedite the digital transformation journey of SMEs in the SEA region. A big opportunity waiting to be tapped, given the sheer volume of SMEs in the region.

About Epson

Epson is a global technology leader dedicated to becoming indispensable to society by connecting people, things and information with its original efficient, compact and precision technologies. The company is focused on driving innovations and exceeding customer expectations in inkjet, visual communications, wearables and robotics. Epson is proud of its contributions to realizing a sustainable society and its ongoing efforts to realizing the United Nations Sustainable Development Goals.

Since 1982, Epson has developed a strong presence across major markets in Southeast Asia and South Asia. Led by the regional headquarters Epson Singapore, Epson's business in Southeast Asia spans an extensive network of 11 countries with a comprehensive infrastructure of close to 500 service outlets, 7 Epson solution centres and 7 manufacturing facilities.

This study was conducted on behalf of Epson by Intuit Research.

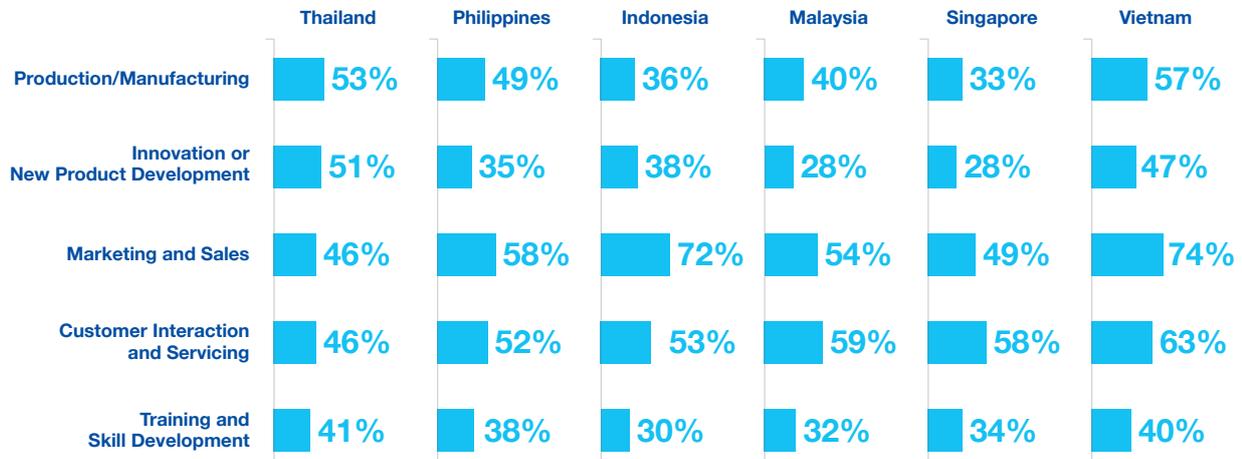
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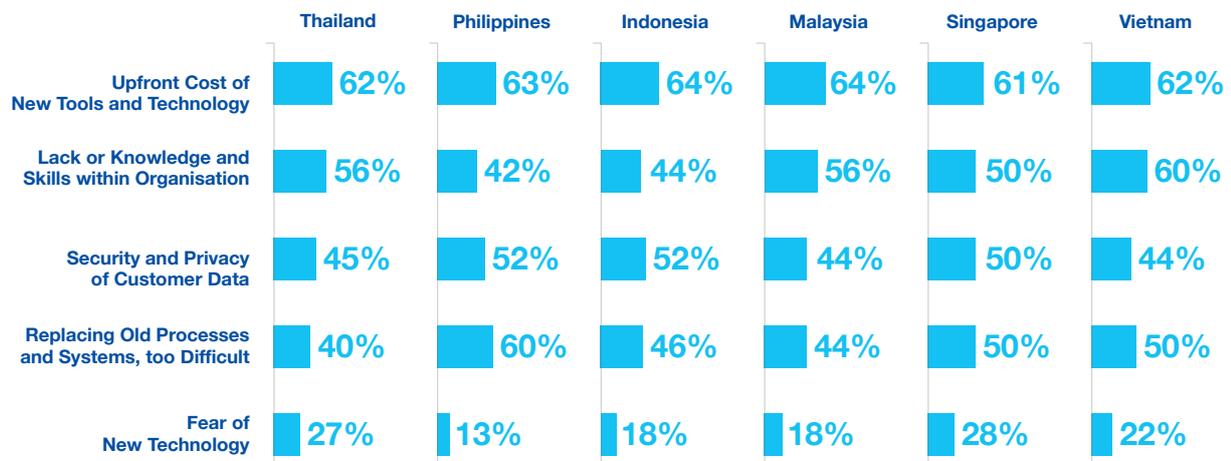
Appendix

Chart A: Departments that have started digital transformation (among those SMEs that have begun digital transformation)



Which department or business process have you started adopting?

Chart B: Challenges to digital transformation



Thinking of digital transformation and technology adoption to improve the way your business operate today, what are the challenges you face within your organization?