SINGAPORE PRODUCTIVITY CHALLENGE

ROLE OF THE PRIVATE SECTOR
EXECUTIVE SUMMARY

Over the past decade, Singapore has lost some of its economic competitiveness. While the economy has been growing steadily, the pace of growth has stagnated. Most significantly, wages in Singapore have continued to rise, but labour productivity is in decline. When benchmarked against other Asian economies, the misalignment between wage growth and productivity is even more pronounced. This contributes to the challenge for Singapore in many industries to stay ahead of emerging, neighbouring economies such as China, India, and Indonesia.

Several industries contributing significantly to Singapore’s gross domestic product (GDP) have seen a rise in market capitalisation over the last five years, but at the same time experienced a decline in numerous productivity metrics. These include profit per employee, return on capital, and – in some cases – return on equity.

Recognising the importance of workforce productivity, the Singapore government has promoted its improvement as a focus area for the economy. In building the economic case for higher productivity, the government has highlighted the need to improve employee skills rather than reduce employee numbers. The government has taken the lead by driving greater productivity within its own departments, and also by providing conditions for productivity growth in the overall economy.

With further pressures coming from digitization, it is our contention that the larger private-sector companies operating in Singapore need to further promote productivity within their organisations to help raise the skills, effectiveness, and – ultimately – productivity of their employees. This will help generate economic returns at the company level, make Singapore’s industries more competitive and resilient, and have a positive impact on society. It will also set an example for smaller companies to follow.

We call on the leadership of Singapore’s industrial and financial champions to be bold, to adopt new techniques, and to view productivity through a different lens. They should revisit fundamentals relating to strategy, operating models, and expectations of service level. We also believe that to fully realise the potential productivity improvements, there needs to be increased engagement with the workforce, better focus and incentives for promoting innovation, and the right investments in individual employees’ development.
Singapore is lauded as one of the greatest economic success stories in history. GDP has grown at an average annual rate of around 7.7 percent since its independence in 1965. The growth has produced a marked improvement in the quality of life of Singapore’s people. This is exemplified by improved life expectancy, falling unemployment, falling income inequality, and rising wages. Between 2004 and 2014, including Central Provident Fund (CPF) contributions, the median gross monthly income of employed residents aged 15 and above increased at a compound annual growth rate (CAGR) of 4 percent. Based on OECD data, life expectancy improved by almost 20 years, from 64.5 to 82.7, between 1965 and 2015.

However, the pace of progress in Singapore is slowing: GDP growth decreased from 4.7 percent in 2013 to 2.0 percent in 2015. This was comparable to Australia (2.3 percent), Hong Kong (2.4 percent) and South Korea (2.6 percent). But many competing economies in the region continue to outpace Singapore, including Indonesia (4.8 percent), China (6.9 percent) and India (7.6 percent). The recent shift to less globalisation is expected to further exacerbate the economic uncertainty in Singapore. The protectionist economics is growing in strength in Europe and US which will slow down cross-border flows of goods, services and capital. This was noted as particularly worrying in the recent report released by the Committee on the Future Economy, given that two-thirds of Singapore’s GDP is generated by external demand.

Singapore’s slowdown can be attributed in part to changing demographics. As the nation lacks natural resources and is constrained by a small population, the government had the foresight to recognise that Singapore by itself will face a natural slowdown in growth of economic output. To mitigate this challenge, Singapore has relied on importing foreign manpower to support and drive its economy. Furthermore, the government has recently focused on driving productivity gains through a series of public initiatives aimed at getting more done with fewer people. (These are discussed further in Section 3.2.) However, these policies have had limited impact so far. A recent analysis by the Ministry of Trade and Industry (MTI) shows that the real value added per worker declined by 0.5 percent in 2014 and then 0.1 percent 2015.

This productivity challenge has been widely acknowledged by the country’s top government leaders. Lim Swee Say, Singapore’s Minister of Manpower, summarised it thus: “Over the past five years, the Singapore economy’s growth ... was powered solely by manpower growth, while productivity was more or less stagnant. Without a breakthrough in productivity growth ... low growth will become the new norm.”

---

1 World Bank data, 1965-2015
2 Ministry of Trade and Industry (MTI)
3 World Bank data
4 Report of the Committee on the Future Economy, which comprises members from different industries that operate in both global and domestic markets, as well as enterprises both large and small
5 The Straits Times
### Exhibit 1: Top Macroeconomic Indicators for Singapore

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>INDICATOR</th>
<th>TREND</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Economy</td>
<td>Real GDP growth rate</td>
<td>✅</td>
<td>From 2013 to 2015, Singapore’s real GDP growth rate decreased from 4.7% to 2.0%. In 2015, Singapore’s real GDP grew 2.0% while world GDP increased 2.47%</td>
</tr>
<tr>
<td>Per capital GNI</td>
<td></td>
<td>✪</td>
<td>Between 2011 and 2015, Singapore’s per capita GNI increased at a CAGR of 2.51%. In 2015, in PPP terms, Singapore’s per capita GNI was approximately US$81.2 K, while the world’s was US$15.4 K</td>
</tr>
<tr>
<td>Demography</td>
<td>Population growth rate</td>
<td>✅</td>
<td>Between 2013 and 2015, Singapore’s population growth rate declined from 1.62% to 1.19%, while the world’s population growth rate declined from 1.22% to 1.18%</td>
</tr>
<tr>
<td>Aging population</td>
<td></td>
<td>✪</td>
<td>Singapore’s population is rapidly ageing. The proportion over 65 years old has increasing from 9.9 to 11.7% in the last three years</td>
</tr>
<tr>
<td>Social inequality</td>
<td>(Gini coefficient)</td>
<td>✅</td>
<td>Singapore’s Gini coefficient declined to 0.458 in 2016, its lowest score in the last 10 years</td>
</tr>
<tr>
<td>Labour market</td>
<td>Unemployment rate</td>
<td>✅</td>
<td>Singapore’s overall unemployment rate has declined slightly since 2010. In 2015, the annual overall unemployment rate was 1.9%</td>
</tr>
<tr>
<td></td>
<td>Value added per worker</td>
<td>✅</td>
<td>Value added per worker has been declining since 2014 in real terms. It declined by 0.5% in 2014 and 0.1% in 2015</td>
</tr>
<tr>
<td>Median wage</td>
<td>Annual wage</td>
<td>✪</td>
<td>Median gross monthly income of employed residents aged 15 and above increased by 52.4% between 2004 and 2014</td>
</tr>
<tr>
<td>Costs</td>
<td>Unit labour cost index of overall economy</td>
<td>✪</td>
<td>Between 2004 and 2014, Singapore’s unit labour cost index rose at a CAGR of 1.9%. Between 2010 and 2014, Singapore’s unit labour cost index rose at a CAGR of 2.7%</td>
</tr>
<tr>
<td></td>
<td>Unit business cost of manufacturing</td>
<td>✅</td>
<td>Between 2011 and 2015, the unit business cost of manufacturing rose at a CAGR of 2.5%</td>
</tr>
<tr>
<td></td>
<td>Unit labour cost of manufacturing</td>
<td>✅</td>
<td>While the unit labour cost of manufacturing declined at a CAGR of minus 0.4% between 2004 and 2014, it has risen at a CAGR of 1.7% in recent years (2010 – 2014)</td>
</tr>
</tbody>
</table>

### Status
- ✅ Overall declining trend
- ✪ Overall increasing trend

### Source
- MTI, World Bank data, Singapore Ministry of Finance, Ministry of Manpower, Singstat, Straits Times, MMC APRC

Moreover, the high wage growth and weak productivity growth have caused a rise in unit labour costs. Singapore’s unit labour cost index rose at an average CAGR of 1.9 percent from 2004 to 2014. Ho Meng Kit, CEO of the Singapore Business Federation (SBF), outlined the long-term implications of such a trend: “If wage growth continues to outpace productivity growth, we will price ourselves out of a globally competitive market. Our businesses will be uncompetitive.”

When compared to other Asian economies, the misalignment between productivity and wage growth in Singapore is even more evident. In Hong Kong and South Korea, real average wages rose at a CAGR of 0.1 percent between 2004 to 2014, compared to 0.9 percent for Singapore and South Korea. However, Hong Kong’s growth in real productivity for the same period stood at 2.5 percent, while South Korea’s was 2.4 percent – both more than three times that of Singapore, at 0.8 percent. A comparison with the United States yields similar results: The US had higher real productivity growth than Singapore’s, but the real average wage growth rate was lower.

To remain competitive, Singapore will need to manage its unit labour costs to prevent a significant rise in future. However, the wage growth is likely to persist amid a tightening labour market. This further emphasises the need to raise productivity. Tharman Shanmugaratnam, Singapore’s Deputy Prime Minister and Coordinating Minister for Economic & Social Policies in the Singapore Cabinet, summed this up in a speech on Budget 2014:

---

6 Ministry of Trade and Industry (MTI)
7 The Straits Times
8 MTI Staff estimates based on administrative and survey records, Hong Kong Census and Statistics Department and the Organisation for Economic Co-operation and Development. The real productivity and real average wage growth rate estimates sourced from “Economic survey of Singapore 2015” by MTI.
“It is a very important challenge: for us to be able to raise productivity while providing jobs and opportunities for all our citizens. It is a much bigger challenge than raising productivity by shedding jobs”.

Singapore has implemented many initiatives over the last five years to try to boost productivity. The government’s own ministries and statutory boards have led the way with initiatives to promote greater use of IT, automation, and the upskilling of public officers. For example, the Info-communications Development Authority of Singapore (IDA) and the Media Development Authority of Singapore (MDA) have been restructured to form the Info-communications Media Development Authority of Singapore (IMDA) and the Government Technology Agency (GovTech). GovTech is focused on developing and delivering secure digital services and applied technology to individuals and businesses.

The Singapore government’s e-transformation campaign has included committed public and political service leadership, creating an environment for cumulative institutional learning, investment in information infrastructure, and early attention to information and communications technology (ICT) literacy and user adoption. The dynamic approach to innovation is shown by the launch of the IDA’s “Workplace of the Future” initiative. The approach starts with proof-of-concept testing, followed by small-group trials, and eventual implementation by the government as a whole.

The Ministry of Defence (MINDEF) utilises the Work Improvement Teams (WITS) platform to identify and gather suggestions from its employees. The WITS program is run annually and requires each employee to submit suggestions on how their work or workplace could be improved. Such suggestions often include more efficient processes, cheaper alternatives, and safety-related improvements. Through this system of employee empowerment, Singapore Armed Forces (SAF) and MINDEF generated over $164 million in savings in 2016.

There are also plenty of government initiatives in place to support the private sector. The National Productivity and Continuing Education Council coordinated and developed a comprehensive system in 2010 for the continued education and training required to boost skills and enterprise productivity. In the following year, the Inland Revenue Authority of Singapore (IRAS) announced a corporate income tax rebate and cash grant for small and medium enterprises (SMEs) aimed at helping companies deal with increasing business costs. The IRAS later launched the Wage Credit Scheme in 2013 to help companies retain good workers. SPRING Singapore launched numerous grants and schemes to support SMEs through initiatives to improve productivity, upgrade employee skills, and adopt labour-efficient technologies. One example is its Innovation and Capability Voucher for upgrading SMEs’ operations. More recently, other initiatives have been announced to encourage the adoption of new technology in sectors such as construction, financial services, and healthcare.

One of the main drivers for Singapore’s economic success has been a forward-looking approach to economic planning and sector development, which derives from the government’s long-term investment in national growth. The government has historically taken a forensic approach to examining opportunities and gaps, and has been swift and decisive in its execution of initiatives. The result of this approach to economic development has been a strong collaboration between the public and private sectors. This has enabled rapid reactions to shortages in capital, resources, and skills, which have included collaboration on training and retraining initiatives.

Singapore’s private sector has as good – if not better – government support than the private sectors of most other countries. Yet this support in itself has not always led to improved productivity.

---

9 Ministry of Defence (MINDEF)
10 The Straits Times
11 SPRING Singapore is an agency under the Ministry of Trade and Industry responsible for helping Singapore enterprises grow and building trust in Singapore products and services
To get a picture of private sector productivity in Singapore, we investigated the relationship between productivity and financial performance between 2011 and 2015 for the top 100 companies by market capitalisation listed on the Singapore Exchange (SGX).

The data shows that the market capitalisation of these companies grew at a CAGR of 5.9 percent over the five-year period. (See Exhibit 2.) However, there was also a declining trend in key productivity measures over the same period. Return on total capital\(^{12}\) declined from 9.8 percent to 6.8 percent, and return on equity dropped dramatically from 24.0 percent to 11.4 percent. These falls may partially be driven by companies holding increased capital and by investments in regionalisation and for broader expansion. However, profit per employee also contracted at an annual rate of 9.5 percent between 2011 and 2015.

A recent analysis of workforce metrics by Mercer further emphasises the productivity challenge.\(^{13}\) It shows that the decline in profit per employee is characterised not just by rising operational cost per full-time equivalent (FTE), but also by declining revenue per FTE.\(^{14}\) This trend can be seen across companies of different sizes. Revenue per FTE declined by 17 percent at smaller companies and 18 percent at larger ones from 2013 to 2015. At the same time, the operational expenses (OpEx) per FTE increased with the highest impact seen for smaller companies of about 67 percent. (See Exhibit 3.)

### Exhibit 2: Indicators of growth for Top 100 companies

<table>
<thead>
<tr>
<th>MARKET CAPITALISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEXED AT 100 FOR 2011</td>
</tr>
<tr>
<td>2011</td>
</tr>
<tr>
<td>2012</td>
</tr>
<tr>
<td>2013</td>
</tr>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2015</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROFIT PER EMPLOYEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEXED AT 100 FOR 2011</td>
</tr>
<tr>
<td>2011</td>
</tr>
<tr>
<td>2012</td>
</tr>
<tr>
<td>2013</td>
</tr>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2015</td>
</tr>
</tbody>
</table>

### Exhibit 2: Indicators of growth for Top 100 companies (continued)

<table>
<thead>
<tr>
<th>MARKET CAPITALISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEXED AT 100 FOR 2011, IN %</td>
</tr>
<tr>
<td>2011</td>
</tr>
<tr>
<td>2012</td>
</tr>
<tr>
<td>2013</td>
</tr>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2015</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROFIT PER EMPLOYEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEXED AT 100 FOR 2011, IN %</td>
</tr>
<tr>
<td>2011</td>
</tr>
<tr>
<td>2012</td>
</tr>
<tr>
<td>2013</td>
</tr>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2015</td>
</tr>
</tbody>
</table>

Source: S&P Capital IQ

12 Defined as earnings from continuing operations divided by the average of total equity (current and previous year). Data sourced from Capital IQ
13 “Mercer’s Workforce Metrics Capabilities”
14 Top companies in Singapore based on revenue
It is our belief that an important reason for stagnating productivity growth is an inadequate emphasis on maximising productivity within organisations. Traditionally, the key objective of private-sector companies has been to improve financial performance. At the same time, it is difficult to measure and track the value added per employee in quantifiable terms, and it is sometimes ignored. However, as the world moves into the digital age, greater focus has to be placed on employee output levels. Productivity measures provide great insight into intangible positive factors generated by employees, such as knowledge creation and innovation. These in turn drive growth in traditional performance metrics.

The correlation between traditional financial performance metrics and productivity measures can be seen through an industry-level drilldown of private-sector performance. We find that key performance measures, such as profit per employee and return on total capital, have either declined or remained mostly stagnant in numerous industries in Singapore. (See Exhibit 4.) There is also a strong correlation between productivity (profit per employee) and traditional financial performance (return on total capital) across industries.

The task of improving productivity has thus become imperative but also more complex. Applying greater cost discipline and tightening capital expenditure are effective for lifting immediate core financial performance – but these efforts have natural limits and can stifle future growth opportunities. By embracing automation or forcing people to work harder, which can be relatively easily implemented in most cases, companies can raise profits using few resources. But there is a risk of losing institutional knowledge as well as an associated societal cost to Singapore. The government has recognised how the productivity challenge differs in each industry, and has begun developing a series of industry-specific productivity roadmaps. For example, the roadmap for the precision engineering industry was revealed in October 2016, and featured themes such as “model digital factories,” “digital champions,” and “engineering ecosystems.” Similarly, Singapore is expected to unveil its productivity roadmap for the retail and food industry in 2017.

**Exhibit 3: Workforce metrics**

<table>
<thead>
<tr>
<th>OPEX PER FTE</th>
<th>REVENUE PER FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USD 0.5–1 billion</strong></td>
<td><strong>USD 0.5–1 billion</strong></td>
</tr>
<tr>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>167</td>
<td>83</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>USD 1–2.5 billion</strong></th>
<th><strong>USD 1–2.5 billion</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>106</td>
<td>82</td>
</tr>
</tbody>
</table>

Source: Mercer’s Workforce Metrics Capabilities, Companies bucketed based on size of ‘Total Revenue’. Comparison set of companies is different for 2013 and 2015.
To gain a deeper understanding of the drivers of change in productivity, we looked at the experience of two rapidly changing industries in Singapore: the information and communications industry, and the healthcare industry.

After decades of rapid growth, Singapore’s information and communications industry faces intense competition from around the globe. Although the telecom market is highly saturated, the growing prevalence of over-the-top services such as Whatsapp and Skype has greatly reduced demand for SMS and telephone calls, which have been traditional revenue drivers for the industry. Low-cost competition and shifts in product usage have also put data storage capabilities under pressure. Ultimately, changing market needs, keen global competition, and a shortage of skilled information technology (IT) professionals have been the key reasons for the decline in productivity. Over the past five years, the return on total capital for top Singaporean companies in this industry has declined, and profit per employee has been largely stagnant. (See Exhibit 4.) Nonetheless, the industry is recognised as a future engine of potential growth for the Singapore economy. Players are keenly aware of competitive developments and are pushing hard to reposition themselves to capture global market share. However, the industry faces a shortage of IT professionals: According to Infocomm Development Authority (IDA), even with about 170,000 technology professionals working in Singapore, there were still an additional 20,000 or so vacancies that could not be filled in 2015. The lack of skilled professionals in the industry stifles innovation and results in a shortage of human resources for new projects. This will deepen as areas such as data analytics and application development grow in prominence.

Exhibit 4: Change in productivity metrics for Top 100 Singaporean companies by industry (2011-2015)

<table>
<thead>
<tr>
<th>CAGR (%) IN PROFIT PER EMPLOYEE</th>
<th>Δ RETURN ON TOTAL CAPITAL (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; -10%</td>
<td>&lt; -1%</td>
</tr>
<tr>
<td>-10 to -5%</td>
<td>-1 to +1%</td>
</tr>
<tr>
<td>-5 to 5%</td>
<td>&gt;1%</td>
</tr>
<tr>
<td>&gt;5%</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** Change in profit per employee for each sector calculated as CAGR in profit per employee from 2011 to 2015. Change in return on total capital for each sector calculated as: Average 2015 return on total capital (%) – Average 2011 return on total capital (%)

**Source:** S&P Capital IQ

---

15 Infocomm Development Authority of Singapore
Yaacob Ibrahim, Singapore’s Communications and Information Minister, commented on the challenge for the IT industry: “A young IT graduate wants to go into banking, finance, sales or marketing. He doesn’t want to be at the back end.” Recognising the limitations of a shallow talent pool, polytechnics and universities in Singapore have responded by offering new courses such as cybersecurity and digital forensics. However, greater emphasis needs to be placed on enhancing the productivity of the existing talent pool. Specialised training and knowledge sharing by leading industry professionals, more advanced software applications, and crowdsourcing for unique solutions are all potential ways of making the IT industry more effective.

Next we briefly look at the healthcare industry. Singapore has traditionally focused on offering core fundamentals around essential care and has been cited as having one of the strongest health systems in the world. The infant mortality rate has declined significantly, to two deaths per 1,000 live births, compared with the OECD average of four deaths per 1,000 live births.

The government has recognised that going forward, demand for healthcare professionals will only increase. The National Population and Talent Division estimates that at current fertility and immigration rates, the number of elderly citizens (aged 65 years and over) will double between now and 2030 to 900,000. As healthcare utilisation increases with age, the growing elderly population will place upward pressure on the demand for healthcare services.

To cope with the anticipated increase in demand, Singapore will need to shift its focus from episodic care in acute hospitals to a more holistic approach in community and home settings. In order to achieve this, an estimated additional 32,000 healthcare professionals will be required by 2030, representing an increase of 70 percent from 2012. In addition, Singapore is also building additional healthcare infrastructure as announced in the Healthcare 2020 Masterplan, which includes the opening of acute care hospitals such as Woodlands General Hospital and SengKang General Hospital, as well as community hospitals. However, given Singapore’s physical and human capital constraints, there will be natural limitations on the potential to expand the pool of healthcare professionals and healthcare infrastructure.

In addition, medical costs in Singapore have been increasing. The 2016 Mercer Marsh Benefits survey of Singapore insurers revealed that the medical trend rate, which takes into account both medical cost inflation and the increased utilisation of services, continues to outpace inflation, reaching 9.9 percent in 2015. Similarly, the average inpatient bill size had a CAGR of about 8 percent between 2010 and 2014. (See Exhibit 6 below.)

Increases in inpatient bill sizes can be attributed to a variety of factors, including increasing patient complexity, the shift of simpler cases to outpatient settings, and the increase in manpower requirements. But the consequences of high medical costs are already being felt in Singapore.

---

16 Infocomm Development Authority of Singapore
17 The Straits Times
18 Ministry of Health and Straits Times
First, outbound medical tourism has increased, with more Singaporeans seeking cheaper alternatives in the region. For example, the cost of some procedures can be between 30 and 50 percent lower in Malaysia and Thailand.\(^{19}\) Second, inbound medical tourism has decreased, with the Singapore Tourism Board reporting that medical receipts contracted by 5 percent annually between 2012 and 2014, from SG$1.1 billion to SG$994 million. In contrast, the worldwide medical tourism market is estimated to be growing at approximately 20 percent annually.\(^{20}\)

Hence, concerns around natural constraints on the build-out of healthcare professionals, healthcare infrastructure, and increasing medical costs raise the key question of how the healthcare sector can become more productive. It is our view that the sector needs to fundamentally re-examine its current mode of operation and find more-efficient ways of providing care, so as to increase productivity. These could include the following:

- **Use of integrated healthcare delivery** to minimise the fragmentation of healthcare models and to better coordinate between different medical specialists and healthcare facilities. This in turn would improve patient outcomes and efficiency and also bring potential financial savings through improvements in the coordination of the care process.\(^{21}\)

- **Increase usage of allied health professionals.** Midwives, nurse practitioners and others could support a shift in the delivery of care away from doctors, who often have higher fees. Doctors could then be freed up to focus on higher-value services, and healthcare costs could be minimised.

- **Use of innovation** to increase productivity. For example, Tan Tock Seng Hospital has implemented new technologies such as wearable devices, which have enabled nurses to reduce time spent on administration and spend more time on direct patient care, thus increasing their productivity. The government is already moving in this direction by, for example, reorganising the public healthcare system into three clusters of healthcare institutions to draw from their combined strengths & talents to deliver full range of facilities. Another example is increase in the number of advanced practice nurses to alleviate workforce stress due to aging population. However, these efforts have been mainly focused on the public sector rather than the private.

For both the healthcare and the information and communications industries, the challenges go beyond a simple lack of qualified professionals. They are both dependent on the right level of skills development and talent management in both the private and the public sectors.

We could have selected examples from other industries in Singapore or abroad to illustrate some of the different and complex challenges facing companies, public institutions, and individuals keen to improve their productivity and efficiency. Our broader point is that it is up to major institutions to pave the way and set an example for others to follow.

---

19 The Straits Times
20 Frost & Sullivan
21 Asia Pacific Risk Centre 2016 (Marsh & McLennan Companies): Advancing Into The Golden Years
Exhibit 6: Comparison of Singapore healthcare costs over time

AVERAGE COST PER PATIENT FOR LEADING SINGAPORE HOSPITALS
FY2010-14 (MAR 2010-MAR 2015), SGD PER PATIENT

AVERAGE COST COMPOSITION FY2010-14 (MAR 2010-MAR 2015), %

1. Average cost per patient of National Healthcare Group, SingHealth Group, and Changi General Hospital (represents 11 out of 26 hospitals in Singapore)

Source: Annual reports, Oliver Wyman analysis
CALL TO ACTION FOR LARGE, PRIVATE-SECTOR COMPANIES

Singaporean companies are under natural competitive and shareholder pressures to increase productivity, but also societal pressure to refrain from drastically reducing their workforces. Large private firms should therefore be at the forefront of change.

While corporate leaders have an almost free hand to develop their personnel, a real productivity drive should not purely be a reaction to competitive pressure or a result of a national effort. Rather, it should be built into a company’s day-to-day operations. Large corporates should take the lead by developing productive, flexible workforces and providing staff with an environment where they can thrive and grow professionally. This would present the most effective outcome and would serve the needs of both individual firms and Singapore as a country, now and in the future.

Such an effort requires boards and executives to reflect on a broad range of issues pertaining to their organisations and personnel, to challenge conventional wisdom where necessary, and potentially to look abroad for inspiration.

Most notably, as companies in Singapore get larger and more complex, we believe that the role of leaders in actively engaging and developing staff is becoming even more critical. To ensure this investment in staff can be fully realised, leadership needs to ensure that all aspects of the organisation are effectively aligned with its strategic intent. To do so, it is vital that an organisation become effective, rich in key skills, motivated, and aligned to deliver its purpose and strategy. In other words, it must promote organisational effectiveness. The four key requirements to drive workplace productivity are detailed in Exhibit 7.

Exhibit 7: Oliver Wyman’s Organisational Effectiveness Diagnostic (OED) tool

FOUR REQUIREMENTS FOR EFFECTIVENESS

1. Fundamental qualities
2. Being optimised
3. Managing customers and stakeholders effectively
4. Constantly regenerating and evolving

Companies need to
- Get the fundamentals right
- Meet a minimum level across all four requirements
- Specialise in one or two of (2), (3) and (4), due to trading-off limited resources

TEN “QUALITIES”

1. Customer centricity
2. Collaboration
3. Stakeholder connectivity
4. Foresight and responsiveness
5. Efficiency
6. Efficacy
7. Capability and competency
8. Clarity and alignment
9. Engagement, motivation and wellness
10. Innovation and renewability

Source: Oliver Wyman
We now elaborate more on each of these four areas.

1. To achieve organisational effectiveness, it is vital that the organisation gets its fundamental qualities right.
   - Clarity and alignment: The organisation is clear about its overall purpose and strategic direction. The organisational components are aligned to support the realisation of its objectives, such as corporate strategy and productivity goals.
   - Collaboration: The organisation fosters an environment of cooperation and partnership both internally and externally, ensuring that touch points with all stakeholders are managed effectively to drive value.
   - Capability and competence: The organisation needs to have the appropriate capabilities and competencies, and these need to be supported by the organisational structure and governance. Capabilities – agility, innovation, and customer-centricity, for example – that are critical to enhance productivity need to be nurtured and deployed in the appropriate areas of the business.
   - Engagement, motivation and wellness: A successful organisation ensures that people are engaged and generally “well”. Employees who are motivated are willing to go the extra mile to help the organisation achieve its goals.

According to the World Economic Forum’s “Future of Jobs” report, nearly one third of today’s critical skills could be rendered obsolete over the coming decade. Consequently, it is our view that companies should also invest in creating a skills inventory, and in up-skilling and re-skilling employees to meet future demands. This theme was echoed in a recent report by the Committee on the Future Economy, which emphasised the need to make learning a way of life so that people can quickly and easily adapt to new job demands.

Leadership teams must therefore identify the industry thresholds they need at least to meet in all pillars – and then focus on one pillar to ensure their organisation can be highly effective. These pillars are as follows:

2. Internally optimised organisations continually demonstrate that they can do a limited number of things at the lowest cost. Efficacy is achieved by implementing structures and processes to support effective decision making and the organisation's tactical and strategic goals. Efficiency minimises unnecessary complexity and ensures that timely implementation and streamlining are demonstrated across the organisation.

3. Managing customers and other stakeholders effectively through connectivity and ensuring customer centricity. Connectivity ensures that touch points with all stakeholders are managed effectively in order to drive value. Customer centricity enables the organisation to be in tune with changing customer needs and to respond appropriately.

4. Constantly regenerating & evolving in response to the changing landscape. Foresight & responsiveness enable the organisation to proactively identify and respond to emerging challenges in the external environment. Innovation & renewability position the organisation to refresh and reinvent itself in a timely manner so that it can create new sources of competitive advantage, such as competences, processes, products, and services.

Many private-sector firms in Singapore are already undertaking such assessments and reviews to establish a more confident view of what the fundamental qualities need to look like to support continued growth and efficiency in a rapidly changing world. Research has shown that in setting its strategic direction, a company needs to make critical trade-offs – specifically: Where will the organisation focus? The research showed that businesses that have sustained success have focused on one of the supporting pillars of organisational effectiveness. It is tempting to focus on more than one pillar, but this typically results in sub-optimal structures within the organisation. In contrast, those that meet thresholds in all pillars but excel in a single pillar tend to dominate their market.

23 Michael Treacy & Fred Wiersema, The Discipline of Market Leaders: Choose Your Customers, Narrow Your Focus, Dominate Your Market
Ultimately, many Singaporean private-sector companies – both large and small – will need to transform to some extent how they engage with and develop their workforces. The above framework can help pinpoint where and how. The effectiveness of an organisation in a supporting pillar can be measured by evaluating the underlying drivers. For example, an organisation that aims to be **constantly regenerating and evolving** should establish whether it employs all the following drivers:

- Proactive use of competitive insights and analytics to identify external changes and trends in order to inform decision making
- Operational processes that are continuously renewed, improved, and adapted
- Effective change management and delivery
- Internal environment that promotes learning, agility, improvement, and innovation

To make the assessment, a combination of internal and external perspectives can be employed, including employee surveys, focus groups, leadership interviews, internal documents, and studies that provide insight into external perceptions of the organisation. The assessment of the current organisational set-up will highlight areas of strength and weakness and provide transparency in terms of the drivers of results. The key is to link this to action-oriented insights and recommendations on areas requiring improvement. This is easier said than done.

A recent OECD report\(^{24}\) illustrates that the main source of productivity slowdown is not so much a slowing of innovation by the most advanced firms, but rather the rising gap between high-productivity firms and the rest. This implies that knowledge diffusion should not be taken for granted. We encourage firms to challenge and rethink fundamental operating and business-model issues such as productivity-enhancing technology, the streamlining of processes, and digitization to rapidly diffuse ideas. Out-of-the-box innovation should come from questioning the status quo – challenging long-held beliefs, getting teams out of their comfort zones, and providing outside-in thinking so as to learn from others’ innovations.

Finally, regardless of the focus chosen, excellence cannot be achieved without having the right motivating structures in place. As one of our clients, CXO, puts it: “What gets measured, acknowledged, and rewarded usually gets done.” To drive organisational effectiveness, companies should consider increasing the links between performance management and reward frameworks on the one hand, and personal and company-wide productivity enhancements on the other – for example, via bonus pools, key-performance indicators and scorecards, and gain-sharing incentives.

This may require a degree of cultural change, which might have to go deep in some more-established institutions. Behaviour changes on an individual and gradual basis require sustained attention and support from leadership. We have found that leading global institutions able to foster cultural change reinforce it through a succession of “waves” of change and the use of specific activities to deepen the behavioural shift. As an example, a framework used by one leading corporation is summarised in Exhibit 8.

In summary, we believe there is tremendous upside opportunity for large Singaporean private-sector companies if they can realise the untapped productivity potential of their employees and associated processes, while evolving a more flexible workforce to meet tomorrow’s more volatile world. This will yield economic returns for shareholders and societal returns for Singapore, and set a positive example for smaller companies. The journey will require strong leadership commitment, a willingness to challenge conventional wisdom, and a structural framework within the organisation that enables employee growth and development.

---

24 OECD, The Future of productivity
Exhibit 8: Framework for embedding cultural change

LEVEL OF ENGAGEMENT

High

Learning module applied to business context to raise awareness of target behaviours and actions

Follow-up nudges (ideally every 8 or so days)

Close out to reinforce behavioural change

Low

Results of data rich diagnostic/assessment used to develop roadmap of actions

Below the line nudges – seeking to affect the subconscious associated with the change

AWARENESS

Becoming aware of the new modes of behaviour and the need to change

Working sessions focused on linking behaviours to results
- Introductory film
- Behavioural assessment
- Forum theatre discussion
- Working teams discussion on local case

NUDGING

Starting to experience the impact of the new behaviours

Start of 90-day interventions (both at a conscious and subconscious level)
- Action Learning Sets
- 360 & peer feedback
- Pod casts/webinars
- Self-guided exercises/workbooks
- Engagement & feedback

REINFORCING

Frequent repetition of new behaviours delivers consistent feedback

Repeated interventions over 90 days with leadership
- Leadership interest in follow-up commitments
- Leadership coaching
- “Hints & Tips” mentoring conversations
- Map +ve and –ve effects of behaviours on others

SUSTAINING

Changes to reinforcing structures help embed the change

Modify structures to align and reinforce new behaviours
- Criteria for recruitment and promotion
- Leadership role modelling
- KPI optimisation
- Skills/capability development
- Information flows/reporting

IMPACT

Positive results showing at a business level and personal level

Feedback on the business results achieved
- Feedback to the leader from their team and others on the observed shifts – more at the emotional level
- Repeat behavioural diagnostic to demonstrate shift

Note: Approach based on research into adult memory retention (McGaugh – The Spacing Affect and H Ebbinghaus – The Forgetting Curve)