



Increasing Innovation and Productivity in Singapore: The Role of Diversity and Inclusion

American Chamber of Commerce, Singapore:
Government and Regional Affairs Committee and Human Capital Committee

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Abstract

Singapore's history since its independence in 1965 has been one of extraordinary economic success. This growth is a source of national pride, and rightly so: it has been equaled by few places in the world, with GDP per capita growing by nearly a factor of 100 between 1960 and 2017.¹

Growth in the coming years, however, will inevitably be much harder because of significant projected gaps in talent over the coming years. Both Singapore's companies and its government will need to work hard to overcome these gaps if current standards are to be not only met but exceeded. While we are improving technology and increasing worker productivity, research indicates that these approaches alone will not suffice.

To continue growth, Singapore will need to take major steps forward in the use of talent. Diversity and inclusion will be critical factors in this area. A broad variety of studies suggest that improving diversity and inclusion can be exceptionally powerful ways to increase both innovation and productivity.

Singapore: Current State of Affairs

Singapore has much to be proud of. High GDP, high education levels, high literacy rates, effective government, the country's position in ASEAN, and its fortuitous cultural and linguistic balance between East and West are all markers of a successful nation. Yet, like any successful organization, Singapore needs to keep a sharp eye on what is next and act quickly to stay ahead of the curve.

One of Singapore's goals is to become the world's first "smart nation,"² and the vision to become an innovation economy was articulated in the 2018 Budget: "there are . . . bigger issues at hand – including questions about Singapore's ability to remain a dynamic economy and sustain income growth for its citizens in the long term."³

One essential area of focus is innovation.⁴ Due to our small size and population, we can hold a leading position in Asia in thought leadership, application, and commercialization only if we focus on "high-value innovation areas, including intelligent automation and artificial intelligence."⁵

There are successes in this area: In 2018, Singapore was ranked the top Asian country in the Global Innovation Index report, excelling in "innovation inputs," including high-quality education and "innovation-directed investing practices."⁶

Current Risks

In other areas, however, the picture is not quite as rosy. **Singapore falls short in comparison with other countries in “innovation outputs,”** including the number of patent applications and business model creation.⁷ Although we have the ingredients for success, results are not fully meeting expectations. To remain at the economic forefront, Singapore will need to see a tangible boost in both innovation outputs and the productivity of talent.

Yet talent is an area in which Singapore faces substantial risks. While these risks are not unique to Singapore by any means, the implications for our city-state are quite serious. Korn Ferry’s 2018 report on the Future of Work models the estimated labor supply and demand in 2020, 2025, and 2030. The report estimates that by the end of this period, Singapore will need over one million workers in three key knowledge-intensive sectors of its economy: manufacturing, financial services, and “TMT” (technology, media, and telecommunications). The finance sector alone will account for 28.5% of the shortage.⁸ Korn Ferry writes,

Talent is an area in which Singapore faces substantial risks.

A main factor contributing to growing talent deficits is a misalignment between automation, AI, machine learning, and other technological advances and the skills and experience needs to leverage the full potential of those advances. **Technology cannot deliver the promised productivity gains if there are not enough human workers with the right skills.** (emphasis added)

The financial implications of this talent gap are stark: **If the human deficits are not met, the economy could lose out on US\$106.82 billion of unrealized GDP.**⁹ Even more troubling is the potentially circular impact of these talent deficits: The lack of skilled workers hinders Singapore’s ability to innovate, which then reduces the country’s ability to attract more talent, and this lack of attractiveness places even more pressure on wages. “By 2030, Singapore and Hong Kong – small economies with important financial centers – are forecast to face a wage premium equivalent to about 10 percent of their respective 2017 gross domestic products (according to International Monetary Fund estimates).”¹⁰

Moving toward the Future

The question is how to address this situation. **We suggest that improving diversity and inclusion (D&I) will contribute significantly to progress in Singapore’s utilization of talent, leading to growth in both innovation and productivity.**

The potential economic benefits of increasing diversity and inclusion (D&I) in Singapore are significant. A McKinsey & Company 2018 report asserts that Singapore could increase its annual GDP by US \$20 billion by 2025 by advancing women’s equality, or 5% above business-as-usual GDP in a best-in-region scenario in which each country matches the rate of progress of the fastest-improving country in its region.¹¹ Advancing D&I in other areas could contribute further increases to the national GDP.

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Singapore is of course aware of the importance of diversity and inclusion. The country proudly views itself as a society diverse in race and religion. There is a significant international workforce in many areas of the economy, from construction to high finance. The labor market is more open

to women than it is in countries like India and Japan, which have recently been called out by *The Economist* for their poor performance in this area.¹² The government has been creating policies to encourage the employment of more people over 60 years of age and more people with disabilities. More recently, single mothers have been granted maternity leave benefits.¹³

Still, several areas require higher focus, including the presence of women in business leadership roles (especially on boards); the lack of “socially diverse role models”;¹⁴ and the presence of discrimination against and lack of legal protections for certain classes of individuals, including but not limited to pregnant women and members of the LGBT population. To advance the “smart nation” vision, Singapore must be significantly more effective at finding and making the most of talent in every segment of the population, both local and foreign.

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This white paper will first delve into the value of D&I per se, and then tackle three focus areas.

The Business Value of Diversity and Inclusion

Defining D&I

Though definitions of diversity and inclusion vary somewhat, the key common factors are that diversity refers to the presence of difference of many kinds,¹⁵ while inclusion ensures that these differences are valued and contribute to the success of the organization.

For Johnson & Johnson (J&J), the definition of D&I is “You Belong” – contextualizing it within the individual¹⁶:

- **Diversity** at Johnson & Johnson is about everyone’s unique perspective. It’s about you, your colleagues and the world we care for—all backgrounds, beliefs and the entire range of human experience—coming together.
- **Inclusion** at Johnson & Johnson is about creating a deep sense of belonging. It’s about a culture where you are valued, your ideas are heard and you advance this culture for everyone.

Cisco’s definition expands on this with specific examples of the kinds of diversity the company looks at:

Diversity is about having people with a variety of backgrounds, such as gender, sexual orientation, age, culture/ethnicity, color, creed, etc. It is also about having non-traditional varieties of diversity, such as diversity of experience and thought. Bringing a mix of generations, from Generation Z all the way to Baby Boomers and looking at how to bring disabled and much older workers into the organization.”¹⁷

Inclusion at Cisco “is ensuring everybody feels valued, heard, respected, listened to, given a voice so that they feel they are part of the bigger organization.”

For Singapore’s Horan Group, an organization is inclusive when “its employees feel fully integrated into organizational dynamics, leadership, and decision-making - in other words, when they feel their voices are heard.”¹⁸

“It’s important to focus beyond the interpersonal side of inclusion,” says Denise Morris Kipnis, head of Singapore-based ChangeFlow Consulting. **“Inclusion,” she explains, “is building a collective culture where talent is accepted and can learn, contribute, and be rewarded equally.”**¹⁹ **It requires strategic alignment of systems and processes as well as people.**

To be effective, diversity and inclusion need to work together. Diversity as a concept has been a focus of U.S.-based organizations for fifty years, but has been criticized from various angles, in part because merely having different groups present in the work force does not necessarily contribute to the success of either the business or the relevant individuals, and may be viewed as tokenism (i.e., hiring a few members of a group simply to meet quotas).

Bolstering diversity with inclusion, however, has a significantly different impact because this combination requires that the organization *function* differently – with demonstrably better impact. As the AmCham members contributing to this paper have put it, “Diversity is table stakes. Inclusion is where the action happens.”

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happens.**

Investment in Diversity and Inclusion Yields Returns

Advancing D&I has a direct, positive impact on both innovation and productivity. Increasing diversity “combines workers from different backgrounds and experiences that together breed a more creative, innovative, and productive workforce.”²⁰

The Economic Benefits

Recent research from major consultancies quantifies the economic benefits of D&I:

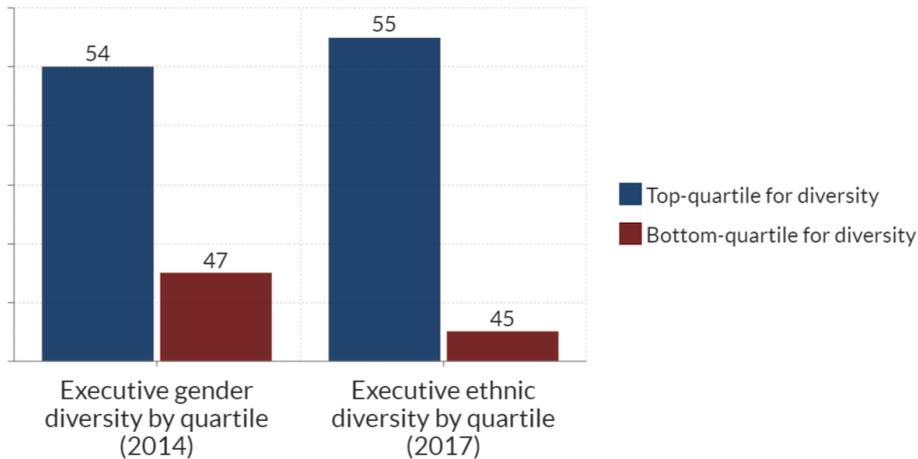
Research from McKinsey has shown that

- Companies in the top quartile for gender diversity outperform EBIT margin by 21%
- Companies in the top quartile for ethnic diversity outperform EBIT margin by 33%
- Conversely, companies in the *bottom* quartile for gender and ethnic diversity were found to *underperform* EBIT margin by 29%.²¹

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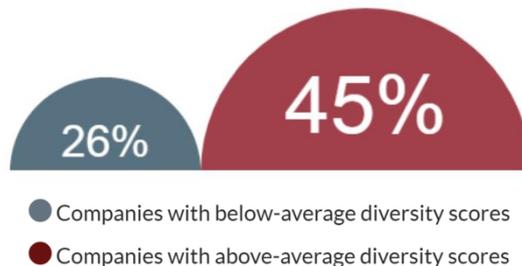
Recent Deloitte research has shown that organizations with inclusive cultures are

- 2× more likely to meet or exceed financial targets
- 3× more likely to be high performing
- 6× more likely to be agile and innovative
- 8× more likely to achieve better business outcomes.²²



McKinsey’s conclusion from this research, which included more than 1,000 companies from 12 countries, is that “the unequal performance of companies in the same industry and the same country implies that diversity is a competitive differentiator, shifting market share toward more diverse companies.”²³

Research from the Boston Consulting Group found that “companies that reported above-average diversity on their management teams . . . reported innovation revenue that was 19 percentage points higher than that of companies with below-average leadership diversity.”²⁴



Further evidence abounds, as the Association for Talent Development notes:

Innovation requires an environment in which ideas can be considered regardless of the source. This can be as simple as making sure that members of a team have equitable "air time" to share ideas. Recent research from The Conference Board has demonstrated that inclusive cultures are four times more likely to be innovative.

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Formally leveraging D&I to promote innovation also has clear bottom-line impact. The Center for Talent Innovation has found that intentionally fostering D&I makes companies 45 percent more likely to increase market share.²⁵

The Innovation Benefits

In a closer look at the impact of D&I on innovation and on performance, a *Harvard Business Review* article entitled “How Diversity Can Drive Innovation” tied diversity (both from such inborn traits as

gender, ethnicity, and sexual orientation and from such acquired experiences as working abroad) to major improvements in market share. Firms in which leaders and talent scored high on these diversity markers were “45% likelier to report that their firm’s market share grew over the previous year, and 70% likelier to report that the firm captured a new market.”²⁶

Corporate studies reinforce this view. **A *Forbes* study of 321 large global enterprises with at least US \$500 million in annual revenue showed that 85% agreed or strongly agreed that diversity is crucial to fostering innovation in the workplace.**²⁷ In another study, Rocío Lorenzo, a Boston Consulting Group partner in Munich, led a team that studied 171 companies in Germany, Austria, and Switzerland. She and her colleagues found that diverse companies generated higher revenues from new products and services over the three-year study period than non-diverse companies.²⁸

The Productivity Benefits

Fundamentally, including a broader and more diverse spectrum of the population in the labor force increases productivity. **A report published by Citi in 2017 found that “Raising average labor force participation, average hours worked, and average labor productivity for women to the levels of men across advanced economies would, other things being equal, raise OECD GDP by around 20% and OECD GDP driven by women by almost 50%.”**^{29,30}

Conversely, the International Labour Organization estimates that the “social exclusion of people with disabilities from the workforce deprives societies of US\$1.37 to \$1.94 trillion in annual loss in GDP.”³¹

The Employee Engagement Benefits

Increased diversity also improves employee morale, a key factor of engagement, according to a 2018 study of over 100 HR leaders in Singapore.³² It also increases retention, according to Peggy Yu, the COO of the Startup Institute.³³ Again, diversity and inclusion must go hand in hand if companies are to benefit. As Yu explains, “Inclusion is the only scalable way to build diversity within an organization. Without thoughtful and deliberate discussion and action to cultivate an inclusive environment, all the energy and resources spent on recruiting a diverse workforce are for naught. The employees so painstakingly recruited will be gone within three months.”

Diversity and Inclusion Drive Better Decision-Making

The natural question following these statistics on how D&I improve performance is “How?” One key factor is decision-making, which a Bain & Company study correlated with financial results “at a 95% confidence level or higher for every country, industry, and company size” in their research sample.³⁴

To understand the relationship of diversity, decision-making, and financial result, Harvard Business School (HBS) professor Paul Gompers and research associate Silpa Kovvali studied the venture capital (VC) industry in the United States. They selected this industry because VC firms are fairly flat: every investor is a decision-maker, and their choices have clear, readily measured business consequences. Using publicly available information, researchers were able to see how similar or different decision-makers are to one another and compare the quality of their decisions on the basis of investment performance. Their conclusion: **“Diversity significantly improves financial performance on measures such as profitable investments at the individual portfolio-company level and overall fund returns.”**³⁵

Their findings are particularly noteworthy because the U.S. VC industry has not placed a high level of emphasis on diversity. The industry is “staggeringly homogeneous”: only 8% of investors are women, 2% Hispanic, and under 1% black. These proportions have hardly changed over nearly 30 years. The HBS researchers noted that shared backgrounds (race, gender, education, or previous work history) tend to increase collaboration. But greater homogeneity did not result in better performance; in fact, the opposite was true.

Diversity and inclusion together – i.e., diverse collaboration – delivers more creative thinking and the innovation necessary to thrive in highly uncertain and competitive markets.

“Venture capital firms that increased their proportion of female partner hires by 10% saw, on average, a 15% spike in overall fund returns each year and had 9.7% more profitable exits (an impressive figure given that only 28.8% of all VC investments have a profitable exit).” The researchers argue that diversity and inclusion together – i.e., diverse collaboration – delivers more creative thinking and the innovation necessary to thrive in highly uncertain and competitive markets.³⁶

The conclusions of this study are echoed by research firm Cloverpop, which focuses on business decision-making. Cloverpop argues that “decision making drives 95% of business performance and half of employee engagement.”³⁷ **Their research shows that gender, age, and geographic diversity on teams improve decision-making – and the greater the diversity, the better the decisions.** (Note: the lower the p-value, the less likely that the correlation is random.)³⁸

Team composition	% better decisions	N	p-value ³⁹
All-male	58%	95	0.07
Overall	66%	566	-
20+ year age range	72%	127	0.13
2+ office locations	72%	240	0.04
Gender diverse	73%	217	0.05
Geographically diverse	75%	117	0.04
Gender diverse, 2+ locations	79%	173	0.0005
Gender diverse, 20+ year age range	80%	94	0.005
Gender, geographically diverse	87%	69	0.0002

These studies clearly show that increasing diversity in multiple dimensions has a demonstrable and positive effect on company performance.

Building Diversity and Inclusion into the Organization is Key

The next question is how to ensure that D&I are effectively built into organizations. **D&I work together most effectively when they shape such core aspects of organizational effectiveness as culture, recruitment and retention, team formation, and leadership.**

Culture is critical because inclusion happens only when new ideas are heard and integrated into action through what researchers Hewlett, Marshall, and Sherbin call “a speak-up culture.” Hewlett et

al. note that leaders who provide constructive, supportive feedback to female team members are “128% more likely to elicit breakthrough ideas” than those who do not.⁴⁰

Step 1: Build D&I into Recruitment

Recruitment is a key area where organizational culture can directly impact diversity. Hiring is a notoriously subjective process – one in which the traditional tools (résumé screening, interviews, etc.) are not good predictors of future success. As a result, bias and the propensity of managers to hire people who share their identity and backgrounds are likely to creep into the process, reinforcing homogeneity.

One step J&J took to address this issue is to use technology and artificial intelligence to eliminate gender bias in job descriptions, with the goal of attracting more applicants. This process has been successful, attracting not only greater numbers but also an increasingly diverse applicant pool.⁴¹ In fact, 60% of J&J’s workforce is female, and 52% of J&J’s directors and managers are women.⁴²

J&J also created a learning program to educate its employees about unconscious bias; by the end of 2018, more than 100,000 of the company’s 140,000 employees have completed this course.⁴³ In addition, J&J created a sponsorship program for diverse talent. Over the first year, the program’s first cohort had 100% retention, with a majority of members receiving promotions or development moves. As a result of this success, the company is tripling the program’s size.

Step 2: Integrate D&I Into Teams

The next step is integrating these diverse hires into teams. Teams are most likely to be innovative when they practice six behaviors:

1. Ensuring that everyone is heard
2. Making it safe to propose novel ideas
3. Giving team members decision-making authority
4. Sharing credit for success
5. Giving actionable feedback; and
6. Implementing feedback from the team.⁴⁴

Deloitte found that **teams with inclusive decision-making practices are far more likely than non-inclusive teams to meet or exceed targets, to innovate, and to achieve good business outcomes.**⁴⁵

Research shows that these benefits occur most consistently when teams are diverse from their inception, when team behavioral norms are instituted.⁴⁶

Embed D&I Into Leadership

Finally, D&I is exceptionally important in leadership.

“Tone at the top” matters in every organization, as employees tend to model the behavior exhibited by their leaders. Organizations with diversity in senior roles tend to display more of the beneficial effects of D&I.

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McKinsey’s research demonstrated this pattern clearly – both in the near term and over time. McKinsey’s 2018 study found that **“top-quartile companies on executive-level gender diversity worldwide had a 21 percent likelihood of outperforming their fourth-quartile industry peers on EBIT margin, and they also had a 27 percent likelihood of outperforming fourth-quartile peers on longer-term value creation.”**⁴⁷ Though women tend to be under-represented in revenue-generating

roles, McKinsey also found that they are much more frequently found in high-performing companies than in low-performing companies (10% vs. 1%).⁴⁸

The role of leadership resonates throughout the organization. For example, one U.S. study showed that in companies without diverse leadership, women, people of color, and LGBT employees were all at least 20% less likely to win endorsement for their ideas than non-diverse employees.⁴⁹ Given the patterns we have already seen, this trend suggests that **companies without diverse leadership are less likely than their more inclusive peers to innovate.**

Three Areas of Focus for Building Diversity and Inclusion

Diversity comes in many shapes and sizes, and a single white paper cannot cover them all. As a result, we chose three areas of focus that we believe offer opportunities for improvement in ways that have great potential economic benefits for Singapore. These areas are gender, nationality, and sexual orientation.

Gender Parity: Holding up Half the Sky

Gender is one of the most obvious and key indicators of D&I, that now serves as the threshold issue for many businesses – one that has been widely studied and on which many organizations are moving forward. **We endorse this focus on gender, with the caveat that while it may be a point of departure for improving performance on D&I, it must not be the final destination. Organizations must be mindful not to adopt an attitude that once they have begun to address gender diversity, their work in D&I is done.**

We already noted the massive importance of women in the workforce. Since women make up half the population, their contributions at every level make a sizeable impact, and countries that fail to include them proportionately suffer significant economic deficits. Women also represent an enormous share of the global consumer base. Representing “a growth market more than twice as big as China and India combined,”⁵⁰ **women’s worldwide consumer spending was**

measured at US\$ 29 trillion in 2013 and estimated to be US\$ 40 trillion in 2018.⁵¹ Even five years ago, women already “owned and operated between 25% and 33% of all private businesses and earned an estimated \$13 trillion.”⁵² Any increase on this massive base is highly significant, both for individual companies and for national economies. Hewlett et al. noted that actively including female employees in developing products and services that are purchased by female consumers both increases innovation and “improves the likelihood of their success by 144 percent.”⁵³

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Primary Obstacles to Gender Parity

Despite the massive contributions greater gender parity can make, women continue to face major obstacles in the business world. One of the most salient is unequal pay. There are many reasons for this disparity, including level of employment, career and childcare trajectories, and pay discrimination, whether deliberate or inadvertent. Regardless of the cause, **when female employees hold disproportionately lower-ranking, lower-paying, less influential jobs, the impact on organizational innovation and productivity is marked.** The upcoming talent crunch will only exacerbate these problems, creating greater demand, higher wages, and more competition for female employees.

As we have noted, inequality starts at the very beginning of the hiring process, with job descriptions. It continues through selection, particularly when there is a gender imbalance among those in charge of hiring. An online simulation that positioned participants as potential hires and employers found that male “employers” hired female candidates 20% less frequently than did female “employers,” whereas female “employers” divided their hires equally across genders.⁵⁴ Diversity in recruitment is crucial because diverse recruiting brings in more candidates – a key step in improving the organization’s talent pool. “In an increasingly competitive economy where talent is crucial to improving the bottom line,” according to one recent study, “pooling from the largest and most diverse set of candidates is increasingly necessary to succeed in the market.”⁵⁵ Furthermore, members of traditionally under-represented groups, another study found, were more likely to seek out people *unlike* themselves when forming entrepreneurial teams.⁵⁶ Without active attention to the importance of D&I, women lose out in employment even before they begin to work.⁵⁷

Inflexible working conditions are a major barrier to the inclusion of women in the workplace – particularly at senior levels.⁵⁸ In Singapore as in many countries, women’s role in childbearing and child-rearing brings them face to face with further obstacles. **In 2013, the acting Minister for Manpower stated that “70 percent of unfair dismissal complaints from women over the preceding five years were related to pregnancy.”⁵⁹ When pregnant women face discrimination and when women disproportionately take time off to raise children (due to both social attitudes and laws that provide for unequal parental leave between the genders), women inevitably lag behind men in promotions.** As a result, they are less represented in higher-paying senior roles than men.

Another important factor is mentorship. According to the VP of Human Resources for Asia of a major technology company,

While it is easier to attract [women] at the entry level and gain a balanced gender ratio and a mix of teams at the lower levels, diversity begins narrowing up the pyramid, mostly in technology in our company, in Singapore and globally. There are multiple hypotheses for the lack of diversity as the leadership rungs are climbed. The first is that there are not enough [talented women] to sponsor or mentor, creating a cycle of a lack of diverse role models. There are challenges in certain parts of our organization for women who have children, as it becomes very difficult for them to return and advance up the career ladder. This is because the demands of women in higher ranks of leadership – such as an increased number of non-office hours spent traveling and entertaining clients at night – may not be appealing to women with children. Another reason could be managers who are not sensitive to good talent, causing good talent to be discounted or not be considered equal to their male counterparts.⁶⁰

Gender diversity in leadership is crucial to creating inclusion (and its correlates: innovation and productivity) throughout the organization. McKinsey’s studies on gender parity have noted that gender diversity on executive teams is positively correlated with higher profitability, regardless of region.⁶¹ However, having only small or token representation of women in senior positions is ineffective. Rocío Lorenzo’s research indicates that only when firms have over 20% women leaders can they successfully increase innovation levels to above average.⁶² Currently, more than half of Singapore companies have not yet achieved this 20% threshold.⁶³ To complicate matters, men and women do not perceive

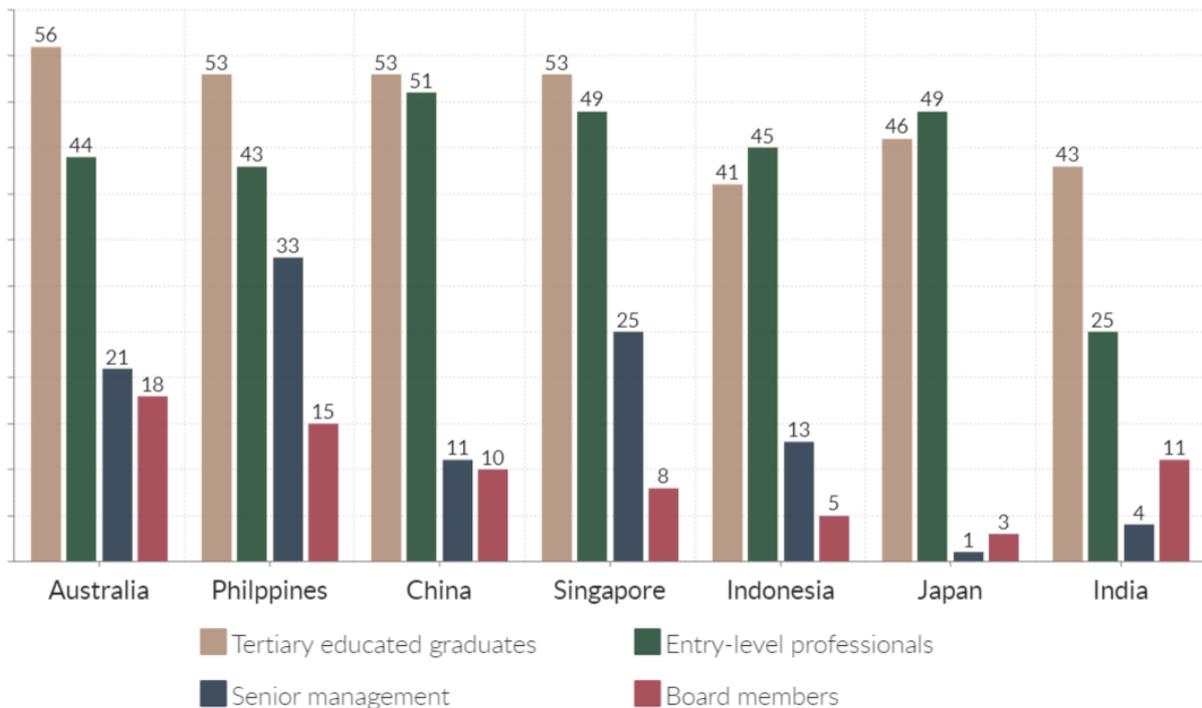
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this situation equally. According to one 2018 study, 80% of male employees in Singapore believed that “their companies were doing enough to support women in the workplace” – yet only 65% of female employees took this view.⁶⁴ And as gender influences perception, so it influences behavior.

At the most senior level, corporate boards, women continue to face obstacles – particularly in Singapore. The Diversity Task Force found that Singapore boardrooms do not prioritize gender diversity as a mandatory requirement. Instead, over 80% of board search committees use criteria that tend to favor managers already on boards. As a result, it is extremely difficult for women to break into this innermost circle of leadership.

Singapore is not unique in the region in having an under-representation of women at higher levels in companies. This chart from the McKinsey Global Institute shows the country to be roughly in the middle of seven countries reviewed, with Australia and Philippines at the leading end of the spectrum and Japan and India at the low end⁶⁵:

Women Representation (%)



But given Singapore’s high ambitions and small population, our need to draw on women’s skills at all levels is high as, if not higher than, those of other nations.

To get the benefit of women’s skills and knowledge on corporate boards, companies must be willing to broaden their net: it is not possible to increase diversity, inclusion, and innovation by doing more of the same. **As *The Economist* recently wrote, “. . . if the concept of non-executive directors is to work at all, a diverse range of viewpoints is needed to avoid ‘groupthink’. And the concept of a shortage of qualified women is a classic catch-22. If companies don’t appoint any women, they can’t get the experience.”**⁶⁶

Another issue Singapore must consider is how to protect women against gender-related discrimination. Currently, the Employment Act offers only limited protection.⁶⁷ For instance, women have no recourse if, despite objectively satisfactory performance, they receive notice of termination immediately after their maternity leave. While the Singapore Tripartite Alliance for Fair Employment Practices (TAFEP) can initiate mediation, if Singapore supported a clear and binding legal obligation not to discriminate, employees and job-seekers would have more certainty about their position and remedies, and employers would have more incentive to behave fairly to begin with.

If Singapore could close the gaps in the inclusion of women in the workplace at all levels and at every step in the employment process, we can realize potential annual GDP of US\$20 billion by 2025.

The Value of an International Workplace

As a business and trading crossroads, Singapore has had a mix of nationalities in the workforce at least since the arrival of Stamford Raffles and the British East India Company in 1819. **Making Singapore accessible to and welcoming of international investment and foreign talent was an essential part of the country's economic development**, even though at times popular sentiment opposed it.

In recent years, however, the government has increasingly moved to restrict the inflow of foreign talent and the granting of permanent residence and citizenship. 2017 saw the steepest decline in foreigner employment in 15 years, as the number decreased by 32,000. The sharpest declines were found in the professional services and IT sectors.⁶⁸

The government is mindful of the conflict between restricting hiring of foreigners and the need for economic expansion: "Probably one of the most critical challenges is to ensure that slower growth of our Singapore workforce will not become the bottleneck in the future growth of our Singapore economy," notes the Minister of Manpower.⁶⁹ The Ministry also recognizes that foreign workers are essential to Singapore's success.

"Diversity of talent – both local and global – is a strength. This helps in the cross-pollination of ideas, helps both our local and foreign workforce operate across cultures, and keep Singapore a vibrant, exceptional destination to do business. . . . For Singapore to thrive, we must be open to talent, and we must groom our own talent. Both go hand in hand."⁷⁰

"For Singapore to thrive, we must be open to talent, and we must groom our own talent. Both go hand in hand." – Ministry of Manpower

Yet not every organization perceives this philosophy to hold in practice. While statistics are difficult to obtain, anecdotal evidence from major international companies suggests that it can be very difficult to bring in qualified foreigners.

Singapore, like almost every developed country, faces complex and increasing political pressures on the immigration front, and there is no question that careful balancing is and will continue to be required. Policies that enhance the development of local talent are essential to the national economy. However, it is also essential that companies and the government recognize the importance of skilled foreign workers and the contributions they make to the nation. As one senior official at a multinational explained,

There is currently a single-minded emphasis on hiring Singaporeans and developing them, as opposed to actually putting value on to diversity. If Singapore wants to be a hotspot for innovation and to become a “smart nation,” the country needs qualified scientists in AI and cybersecurity. Demand for talent far outweighs supply of local talent in this regard – and these are not skills and behaviors people can learn by going to a twelve-week course.

Beyond policies, the question of hiring foreigners also depends on attitudes. As with gender, diversity of nationality is crucial to companies’ ability to innovate. This is particularly true in technology-related areas. One technology executive explained,

Our company began as a startup in Singapore. Typically, working for a startup takes a particular attitude, with a high tolerance for risk and unpredictability of work; a very tough workload without clear processes, systems, and infrastructure; and a fairly undesirable work location. This is at the opposite end of what is important to many Singaporeans, so our company started out with a very high level of foreigners, where people from around the world were looking for these kinds of opportunities. . . . While we are very committed as a company to developing and hiring Singaporeans, we found it extremely difficult to attract them. Over the last two years, over 90 percent of our hires have been Singaporeans – but we are at risk of losing some of our ability to innovate through diversity if we recruit only from one nationality.

“We are at risk of losing some of our ability to innovate through diversity if we recruit only from one nationality.” – Tech company executive in Singapore

Building national capabilities can be done by 1) expanding access to foreign talent, 2) ensuring the transfer of skills by using these skilled foreigners as mentors and teachers for Singaporeans, and 3) actively enhancing the role of learning on the job. But this is possible only if the current market remains open to highly skilled employees from around the world. China and India hold a talent surplus in many parts of the technology, media, and telecommunications sector.⁷¹ As a small country, Singapore must work even harder to make up deficits in these areas.

Singapore should take advantage of its proven ability to learn from the successes and weaknesses of other nations. *The Economist* recently argued that Silicon Valley, the birthplace of high-tech innovation in the U.S., is “on the wane.” One factor is the increasing pressure on immigration in the U.S. While it is widely recognized that immigrants are a key to the success of technology companies, among others, and to national economic success overall,⁷² it is increasingly difficult for these firms to hire foreign talent. One executive at a leading VC firm warns that the long-term implications of these restrictive policies may be severe.

More than half of the top American tech companies were founded by immigrants or the children of immigrants. Despite lobbying from the tech giants, the [current] administration has brought in rules that severely restrict the number of foreigners who can receive work visas. Some tech firms have experienced delays of up to 18 months for foreign hires whom they might otherwise have been able to bring over swiftly. Students who come to America for degrees increasingly end up going home afterward, willingly or not. “If you ask me ten years from now why Silicon Valley failed, it will be because we screwed up immigration,” predicts Randy Komisar of Kleiner Perkins, a VC firm.⁷³

Singapore must take care to avoid this undesirable outcome, whatever the political pressures against immigration may be.

The Benefits of a Rainbow Workplace: LGBT⁷⁴ Issues

Globally, the past 20 years have seen major expansions in LGBT rights, yet D&I on this front are far from established. Only five countries provide constitutional guarantees of equality for their citizens on sexual orientation and gender identity. Homosexuality is illegal in many countries (sometimes for men and women; sometimes only for men); Singapore being one of these. Same-sex marriage is legal in an increasing number of countries but still illegal in many; changing gender is illegal in 20 countries, and same-sex adoption is often forbidden. Much of the world permits discrimination against LGBT people, particularly in the workplace where discrimination is generally allowed, with few or no protections.⁷⁵

In regard to Singapore's economy, **research has shown that in this area, as in others, D&I have a measurable impact on innovation.**

A recent study by NTU and Shanghai University of Economics and Finance professors Huasheng Gao and Wei Zhang focused specifically on this topic. Their research, published both in *Management Science* and in the *Harvard Business Review*, studied the impact of non-discrimination employment laws in different states in the U.S. Gao and Zhang studied the patent filings of thousands of firms between 1976 and 2008, controlling for a variety of company and state characteristics. Firms in states that implemented laws prohibiting discrimination against LGBT employees received 8% more patents and 11% more patent citations than comparable firms in states without such laws. (The results typically showed up about two years after the laws went into effect.) In addition, they found that "pro-LGBT employees" and inventors who moved into states with anti-discrimination laws tended to produce 30% more patents than employees who moved away from such states. Moreover, they found that employees characterized as more likely to be "pro-LGBT" tended to be "younger, better educated, more open-minded, more likely to come from diverse backgrounds, more willing to take risks, and to exhibit a stronger ideological liberalism – traits that correlate with higher creativity."⁷⁶ In this case, **creativity, open-mindedness, and willingness to take risks resulted directly in scientific innovation.**

Pro-LGBT employees and inventors who moved into U.S. states with anti-discrimination laws tended to produce 30% more patents than employees who moved away from such states. – NTU/Shanghai University of Economics study

In a related area, a study of U.S. cities found that those with higher proportions of LGB residents had a higher concentration of high-tech industries, and "four of the top ten LGB cities in 1990 went on to become top-ten high-tech cities by 2010."⁷⁷

The benefits are not restricted to LGBTQ workers alone. As with other kinds of diversity, there is a spillover to other groups. A 2016 report by the Center for Talent Innovation studied 10 global markets, including Singapore, and found that there are "talent and consumer market pressures for promoting LGBT equality. The report found that

- 72% of respondents who self-identify as LGBT allies⁷⁸ are more likely to accept a job at a company that supports equal opportunities for LGBT employees, and that

- 82% of all respondents and 71% of LGBT individuals are more likely to purchase a good or service from a company that supports LGBT equality – “critical majorities, given that global LGBT buying power is estimated at [US]\$ 3.7 trillion.”⁷⁹

Social attitudes, government policy, and archaic anti-sodomy laws⁸⁰ take a significant toll on workplace productivity. To increase innovation and productivity of talent, Singapore could do much more to support D&I for LGBTQ people, their partners, and foreign workers in general. A study by the Center for Talent Innovation found that 65% of respondents in Singapore who are openly LGBT “cover or downplay” their homosexual identity. These closeted LGBT employees tend to “avoid or engage less with colleagues,” and hence are more likely to feel isolated and to “feel sad or nervous at work,” thereby expending “enormous effort” and energy to conceal their orientation.⁸¹ These efforts can exact a heavy toll in mental and physical health, as well as in productivity.⁸² Additionally, these social pressures make it far less likely that their companies can design products and services that will effectively target the LGBT market.

The lack of legal protections that affect women applies even more sharply to LGBT workers, according to a 2017 shadow report submitted by Singapore NGO Sayoni to the 68th UN Women Convention on the Elimination of Discrimination against Women.⁸³ A huge majority – 85% – of LGBT respondents to a Sayoni Singapore study reported facing workplace discrimination on the grounds of sexual orientation, and the courts remain silent on whether employers may rightfully terminate employment of these workers because of their orientation.⁸⁴ While there are no publicly available statistics, anecdotal evidence suggests that LGBT applicants for permanent residence in Singapore are usually declined. Numerous major multi-national companies have found that they are unable to bring in key employees because Singapore does not recognize their marriages, and, as a result, will not approve Dependent Passes for their spouses. As one HR director of a multinational noted, “a gay couple, spouse, and children do not have the privilege of automatic inclusion as far as work permits and dependents’ passes go. Singapore does not recognize LGBT marriage, and partners cannot be brought to Singapore on the merits of spousal visa or dependent visa.”

A huge majority – 85% – of LGBT respondents to a Sayoni Singapore study reported facing workplace discrimination on the grounds of sexual orientation.

These laws and attitudes increasingly put Singapore at an economic disadvantage. India recently reversed its Section 377 law,⁸⁵ the exact analog of Singapore’s Section 377(a). Thailand is now contemplating legalizing same-sex partnerships.⁸⁶ Taiwan recently passed a bill legalizing same-sex marriage,⁸⁷ and same-sex couples have been granted equal spousal benefit rights with heterosexual couples by Hong Kong’s Court of Final Appeal.⁸⁸ Australia legalized same-sex marriage in 2017.⁸⁹ Even China seems to be moving forward on this issue, albeit patchily,⁹⁰ and Tokyo recently passed a law barring discrimination on the basis of sexual orientation and gender identity.⁹¹

While other neighbors, such as Malaysia, Brunei, and Indonesia, continue to enforce discrimination, it is clear that the trend on this topic, both globally and in Asia, is toward greater inclusion – and as a recent survey from Deloitte has shown, millennials prefer to work in open and diverse environments.⁹² To enhance its ability to innovate, to boost employee productivity, to reach new consumer markets, and to expand travel and tourism, Singapore should expand D&I in this area as well.

How Singapore and Industry Can Move Forward

Singapore has shown time and again that it can succeed through pragmatism and practicality, the ability to adapt, openness to international best practice, and willingness to work hand in hand with international businesses. Indeed, the country has always thrived when we have made the most of the international population and focused on increasing economic opportunity. It is clear that the nation, its citizens, and its companies, will benefit by expanding D&I to cover the above areas – not to mention age, physical disability,⁹³ mental health, race, and others.

The nation, its citizens, and its companies, will benefit by expanding D&I to cover the above areas – not to mention age, physical disability, mental health, race, and others.

The coming talent crunch is a powerful force pushing

the country to make the most of every part of the workforce. As skilled workers are increasingly in demand around the world, as the population ages, and as the war for talent grows sharper and wages increase, Singapore cannot afford to under-utilize the existing talent pool. Women, qualified immigrants and foreign workers, LGBT people and their foreign partners, and others all have potential. If Singapore does not utilize their skills, other countries will find ways to attract them and Singapore will fail to meet our economic potential.

There are pivotal ways in which Singapore and the local and international companies operating here can take full advantage of the skills of those who live and work in the nation. The first step is to recognize the importance of D&I.⁹⁴ This paper only skimmed the surface of a substantial area of research, and there is far more to learn. As one multinational executive reminded us,

Just like every other country, this country has to focus on the balance of development of talent regardless of background. **To continue to progress, Singapore has to use every bit of human capital and ensure full participation of the workforce regardless of race, age, disability.** Otherwise, we will have to resort to continually outsourcing talent, which will adversely impact infrastructure. This is especially true: As Korn Ferry reports, there will be talent gaps in certain industries and sectors of more than a million workers.

The next step is to change the workplace culture. Companies are, and should be, driven by the pragmatic need to improve productivity, recruit, motivate, and retain an effective workforce. As a result, they are a powerful environment for learning and social change. Inclusive behaviors such as open-mindedness, the ability to see things from more than one perspective, the ability to embrace ambiguity, flexibility, and solid feelings of self-worth also foster mindsets that promote innovation and increase productivity. **Diverse and inclusive workplaces are better for employees and produce better results.**

The government should also embrace its role as a source of cultural leadership and as a regulator. Government intervention can be powerful: A recent survey of over 100 HR leaders in Singapore found that fully 50% “rated government and regulatory advisory as one of their top two motivators for improving diversity and inclusion.”⁹⁵ Additionally, unintentional exclusion, hiring by affiliation, and even active discrimination have deep roots in social practice in most if not all countries, and, as Newton’s First

The OECD has found that well-designed anti-discrimination employment policies that protect and include minority groups can effectively reduce labor market discrimination.

Law of Motion would suggest, organizational bodies at rest tend to remain at rest until an outside force acts upon them.⁹⁶ The OECD has found that well-designed anti-discrimination employment policies that protect and include minority groups can effectively reduce labor market discrimination because the merit of such policies “resides not only in their capacity to repress unwanted behaviors and compensate victims, but also in their capacity to induce cultural change and redefine socially acceptable practices.”⁹⁷

Numerous studies have shown that to make a difference in areas that are deeply rooted in history, regulation makes an important, positive difference. The study of LGBT anti-discrimination laws and their impact on patent development (cited above) is one example of areas in which legislation can directly improve innovation and productivity. The instances of discrimination and wrongful termination for pregnant female employees and LGBT employees and Singapore’s low rate of female representation on boards show that encouragement alone is not enough to change business practice. Singapore’s government may need to change laws and policies if it truly wants the nation to experience the economic benefits of D&I.

On the corporate side, **companies must focus on D&I in every stage of their people processes, including writing job descriptions, hiring, creating leave policies, recognizing and promoting employees, and considering board membership.** Experience both in Singapore and in many countries shows that without strong, consistent attention to these areas, current patterns will perpetuate themselves – with attendant negative impact on both innovation and productivity.

McKinsey has tabulated a series of measures that both governments and companies should implement if they want to obtain the financial rewards of increasing D&I in the area of gender. These include laws, policies, emphasis on social change, and education.

For government

- Introduce equal remuneration laws
- Expand family-friendly leave options, including gender-balanced parental leave
- Encourage digital access for women without mobile phones
- Invest in shifting attitudes about the role of women in society and work (e.g. awareness campaigns).

For companies

- Analyze and resolve gender pay gap, including by sharing best practice
- Increase availability of flexible work options and return-to-work programmes
- Offer incentives for women to participate in SkillsFuture
- Reduce university and workforce barriers to women participating in STEM fields.

Not least, both the Singapore government and companies doing business here should follow international best practice. Many US-based multinationals that operate in Singapore have been working for years at improving their cultures of D&I. One such company is J&J, whose global D&I strategy is based on three pillars that many organizations can adopt and adapt. These pillars were the result of a global insights and analysis effort to understand how employees were experiencing its culture. This insights work enabled the company to prioritize these three areas that could lift the entire organization:

- **Advancing a culture of inclusion and innovation:** We know that the best ideas, the best solutions happen when people bring their uniqueness to work with them. That’s why we foster a culture of belonging & breakthroughs in every corner of Johnson & Johnson. Inclusion is an integral part of how we leverage that uniqueness into our company.
- **Building a diverse workforce for the future.** We understand that one of the most effective ways of understanding and meeting the needs and desires of our diverse customers and patients is to have a workforce that reflects that diversity.
- **Enhancing business performance and reputation:** Understanding and serving the needs of diverse patients and customers is simply the way we all must operate to drive innovation and growth, and continue to be a thriving and sustainable business.

“The best ideas, the best solutions happen when people bring their uniqueness to work with them.” – Johnson & Johnson

J&J practices these principles in many ways – among them, “engaging middle managers,” “raising awareness of the culture change we are creating,” “establishing clear expectations and driving accountability,” and identifying, fostering, and sharing D&I success – “especially from a business perspective.”⁹⁸

Perhaps most important of all – and most fundamental – is to recognize that while diversity and inclusion are often viewed through an ethical lens, it is at least as important to consider their economic influence. D&I can advance two core goals of every business and of Singapore as a nation – namely, increasing innovation and productivity. Singapore’s vision of becoming the world’s first “smart nation” with an innovation economy can be realized if the country fully embraces these goals and the means required to get there.

While diversity and inclusion are often viewed through an ethical lens, it is at least as important to consider their economic influence. D&I can advance two core goals of every business and of Singapore as a nation – namely, increasing innovation and productivity.

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