
INDUSTRY OVERVIEW

This and other sections of this document contain information relating to the industry in which we operate. Certain information and statistics contained in this section have been derived from various official and publicly available sources. In addition, certain information and statistics set forth in this section have been extracted from a market research report commissioned by us and prepared by Ipsos, an independent market research agency. We believe that the sources of such information and statistics are appropriate and have taken reasonable care in extracting and reproducing such information and statistics. We have no reason to believe that such information or statistics is false or misleading in any material respect or that any fact has been omitted that would render such information or statistics false or misleading in any material respect. However, such information and statistics have not been independently verified by us, the Selling Shareholder, the Sponsor, the [REDACTED], the [REDACTED], any of the [REDACTED], our or their respective directors and officers. No representation is given as to the accuracy or completeness of such information and statistics.

THE IPSOS REPORT

We commissioned Ipsos, an independent market research consulting firm, to conduct an analysis of, and to report on, the construction industry and the manpower outsourcing industry in Singapore. A total fee of S\$55,000 was charged by Ipsos for the preparation of the Ipsos Report. The Ipsos Report has been prepared by Ipsos independent of our Group’s influence. Except as otherwise noted, the information and statistics set forth in this section have been extracted from the Ipsos Report. The payment of such amount was not conditional on our Group’s successful [REDACTED] or on the results of the Ipsos Report.

Ipsos has been engaged in a number of market assessment projects in connection with initial public offerings in Hong Kong. Ipsos is part of a group of companies which employs approximately 16,600 personnel worldwide across 88 countries. Ipsos conducts research on market profiles, market sizes and market shares and performs segmentation analysis, distribution and value analysis, competitor tracking and corporate intelligence.

The Ipsos Report includes information on the construction industry and manpower outsourcing industry in Singapore. The information contained in the Ipsos Report is derived by means of data and intelligence gathering which include: (i) desktop research; and (ii) primary research, including interviews with key stakeholders including manpower outsourcing service providers, building and construction contractors and industry experts and associations in Singapore, etc.

Information gathered by Ipsos has been analysed, assessed and validated using Ipsos in-house analysis models and techniques. According to Ipsos, this methodology ensures a full circle and multilevel information sourcing process, where information gathered can be cross-referenced to ensure accuracy.

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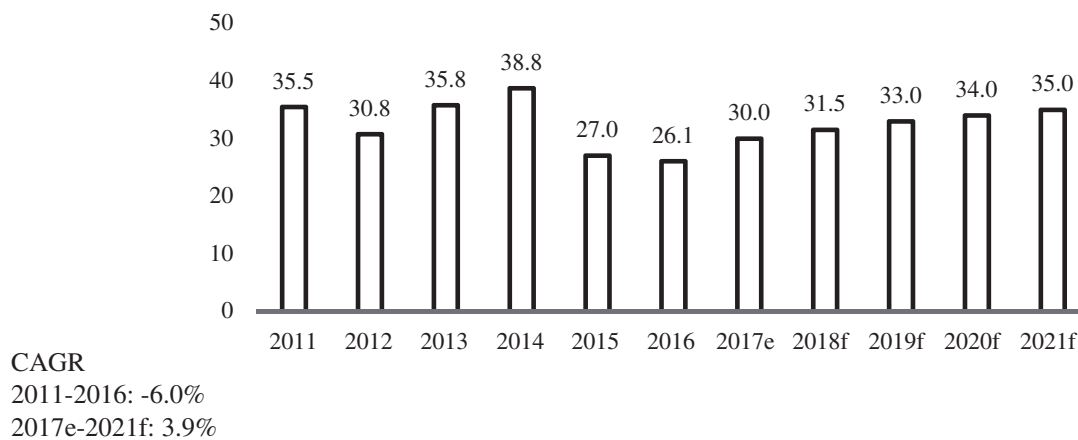
All statistics are based on information available as at the date of the Ipsos Report. Other sources of information, including government, trade associations or marketplace participants, may have provided some of the information on which the analysis or data is based.

Ipsos developed its estimates and forecasts on the following principal bases and assumptions: (i) it is assumed that the global economy remains a steady growth across the forecast period; and (ii) it is assumed that the social and political environments of Singapore will remain stable during the forecast period for the sustained development of the construction industry and manpower outsourcing industry in Singapore.

OVERVIEW OF THE SINGAPORE CONSTRUCTION INDUSTRY

Construction demand by value of contracts awarded, 2011-2021f

Value in S\$ billion



Note 1: The letter “e” denotes estimated figure

Note 2: The letter “f” denotes forecast figures

Source: BCA; Department of Statistics Singapore (SINGSTAT); Ipsos analysis

The construction demand by value of contracts awarded decreased from approximately S\$38.8 billion in 2014 to approximately S\$27.0 billion in 2015, and further decreased to approximately S\$26.1 billion¹ in 2016, which was primarily due to the rescheduling of several major infrastructure contracts from one year to another as longer preparation was needed to implement these large-scale projects. Based on Ipsos research, the construction demand is forecasted to grow at a CAGR of approximately 3.9% from an estimated figure of approximately S\$30.0 billion in 2017e to approximately S\$35.0 billion in 2021f, which is within the range of figures projected by the BCA as shown in the table below.

¹ Department of Statistics Singapore, BCA publication, Ipsos analysis; All sum of balances, construction values or economic values may differ due to rounding of decimals.

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Construction demand by value of contracts awarded projected by the BCA, 2017e-2021f

	2017e	2018f-2019f	2020f-2021f
Total value of contracts awarded (in S\$ billion)	<u>28-35</u>	<u>26-35</u>	<u>26-37</u>

Note 1: The letter “e” denotes estimated figure

Note 2: The letter “f” denotes forecast figures

The forecasted increase in construction demand is largely driven by the construction demand of the public sector, boosted by an increase in demand for civil engineering works such as the second phase of the Deep Tunnel Sewerage System (DTSS phase 2), North-South Corridor and Circle Line 6². Other key public sector projects in Singapore’s construction industry pipeline for 2017 include (i) residential projects such as projects for new public housing construction, continuous upgrading of Housing and Development Board flats and upcoming condominium projects on various government land sites; (ii) commercial projects such as redevelopments of commercial building such as the Funan DigitaLife Mall and CPF building and; (iii) industrial projects such as the development of JTC’s Logistic Hub. In addition, the Singapore Government has also announced to bring forward S\$700 million worth of public sector infrastructure projects to start in 2017 and through 2018, further encouraging the growth of the construction industry in Singapore.

OVERVIEW OF THE CONSTRUCTION MANPOWER OUTSOURCING INDUSTRY IN SINGAPORE

The Singapore construction industry is generally reliant on foreign workers especially when there is currently a shortage of local workers, which was mainly due to an ageing workforce, a declining rate of young Singaporeans entering the construction industry and a lack of attractiveness of the construction industry. As such, the Singapore construction industry has predominantly relied on the supply of foreign workers over the past decade and the shortage of local workers in the construction industry is likely to remain in the foreseeable future.

² Source: BCA publication

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According to the Ipsos Report, the demand for manpower outsourcing service providers in Singapore is affected by developments in the Singapore construction industry. When the Singapore construction industry is growing, building and construction contractors will require more manpower to meet the demand of construction activities. As a result, building and construction contractors that do not have enough in-house manpower could seek recruitment agents or manpower outsourcing service providers to fill the additional demand of workers for their projects. When the construction industry is declining, building and construction contractors are inclined to reduce the number of full-time workers and hire part-time workers to meet the demand when there are construction projects. As such, manpower outsourcing service providers play a vital role in supporting these building and construction contractors by not only providing sufficient workforce for such companies to meet any additional demand of workers but also reduces the overhead costs of maintaining fleet of full-time workers during downtime, thus giving the building and construction contractors more flexibility and allowing them to concentrate on the execution of construction works.

Construction workforce in Singapore

The total number of local and foreign construction workers increased from an estimated number of 404,600 in 2011 to 488,500 in 2016. Foreign construction workers accounted for a sizable proportion of the total construction workforce (i.e. more than 60% consistently) since 2011 and is expected to remain the same for the foreseeable future. From 2011 to 2016, total number of foreign construction workers with work permits grew from approximately 264,500 in 2011 to approximately 315,500 in 2016, representing a CAGR of approximately 3.6%. According to the Ipsos Report, the increase in the number of work permits for foreign construction workers represents an increase in demand for foreign workforce in the Singapore construction industry. As construction demand is expected to increase from 2017 onwards, the number of foreign construction workers with work permit is expected to grow at a CAGR of 3.6% for the next five years to meet current expectations and support the strong pipeline of construction projects in Singapore. By 2021, total number of foreign construction workers with work permits is expected to reach at least 416,500³.

Foreign workers with work permits in the Singapore construction industry, 2011 – 2021

	2011	2012	2013	2014	2015	2016	2017e	2018f	2019f	2020f	2021f
Total foreign construction											
workers with work permits	264.5	293.3	318.9	322.7	326.0	315.5	361.2	378.6	395.6	406.7	416.5

Note 1: The letter “e” denotes estimated figure

Note 2: The letter “f” denotes forecast figures

Note 3: Value in thousand persons

Source: MOM; Ipsos analysis

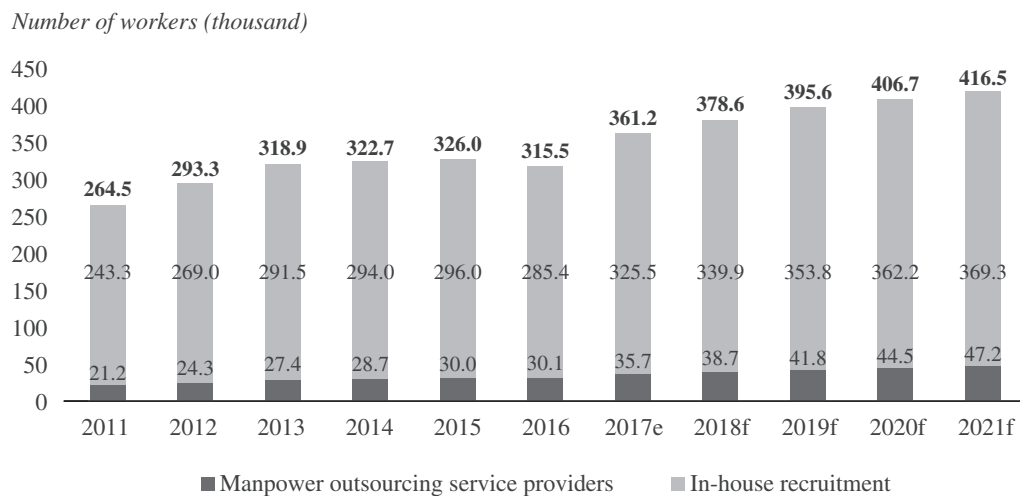
³ Ipsos’ analysis and assumptions.

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There are two main channels which foreign workers in the construction industry can be employed in Singapore. With the assistance of recruitment agents and Overseas Testing Centres which provide candidate referrals service, foreign construction workers can be (i) employed in-house by building and construction contractors; and (ii) employed by manpower outsourcing service providers. The process of recruitment is typically costly and time-consuming due to the lengthy procedures and time to obtain approval of work permit as well as law requirements.

Ipsos estimates the number of foreign workers employed by manpower outsourcing service providers accounts for approximately 8% to 11%⁴ of total foreign workforce in the construction industry over the period from 2011 to 2021.

Breakdown of foreign workers in the Singapore construction industry by channel of employment, 2011-2021



Note 1: The letter “e” denotes estimated figure

Note 2: The letter “f” denotes forecast figures

Source: MOM, Department of Statistics, Singapore (SINGSTAT); Ipsos analysis; Ipsos interviews

Dormitory services for foreign construction workers in Singapore

In accordance with the Employment of Foreign Manpower Act, employers of foreign construction workers need to provide accommodation for their foreign construction workers and such workers can be housed at (i) purpose-built dormitories; (ii) factory-converted dormitories; (iii) standalone construction temporary quarters; (iv) quarters in buildings under construction; (v) temporary occupation licence quarters; and (vi) private residential premises.

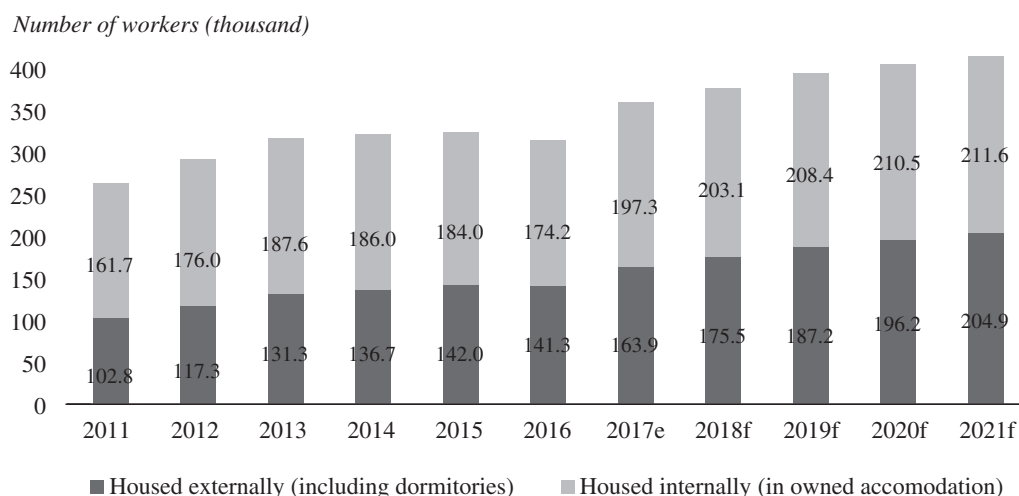
⁴ Ipsos analysis based on information gathered via secondary research and Ipsos interviews.

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From 1 January 2016, operators of dormitories that can house 1,000 or more foreign workers are required to obtain a licence from MOM (“Dormitory Licence”). As of the Latest Practicable Date, there are 47 operators of dormitories with a Dormitory Licence, of which 18 (including Nichefield which currently operates the Woodlands Dormitory) provide accommodation to foreign construction workers in Singapore. Building and construction contractors, when requiring workers from manpower outsourcing service providers, may make accommodation arrangements for the deployed workers on their own during the deployment period or request the manpower outsourcing service provider to provide dormitory services to them for a fee during the deployment period. According to the Ipsos Report, building and construction contractors prefer to engage manpower outsourcing service providers which operate large dormitories to house their workers primarily due to the benefits of housing the workers in one place such as (i) easier management of workers because the workers are not dispersed in several dormitories; and (ii) allowing the manpower outsourcing service providers to ensure the deployed workers would arrive at the work sites on time. In addition, building and construction contractors that do not have the capacity to house their own workers could seek for dormitory services provided by dormitory service provider to house their workers.

Employers of foreign construction workers can house their workers internally (in owned accommodation) or house their workers externally (engaging third parties including dormitory services providers). In 2016, approximately 141,300 foreign construction workers in Singapore were housed externally, representing approximately 44.8% of total foreign construction workers in Singapore. Ipsos estimates that more employers of foreign construction workers will opt to house their foreign construction workers externally in the future due to (i) the limited capacity of owned accommodation and (ii) their preference to focus on their principal business activities instead of diverting their resources and management attention for operating a dormitory. As such, Ipsos forecasts that the total number of foreign construction workers housed externally to reach approximately 204,900 by 2021, representing approximately 49.2% of total foreign construction workers in Singapore.

Breakdown of foreign construction workers by method of accommodation



Note 1: The letter “e” denotes estimated figure

Note 2: The letter “f” denotes forecast figures

Source: Ipsos analysis; Ipsos interviews

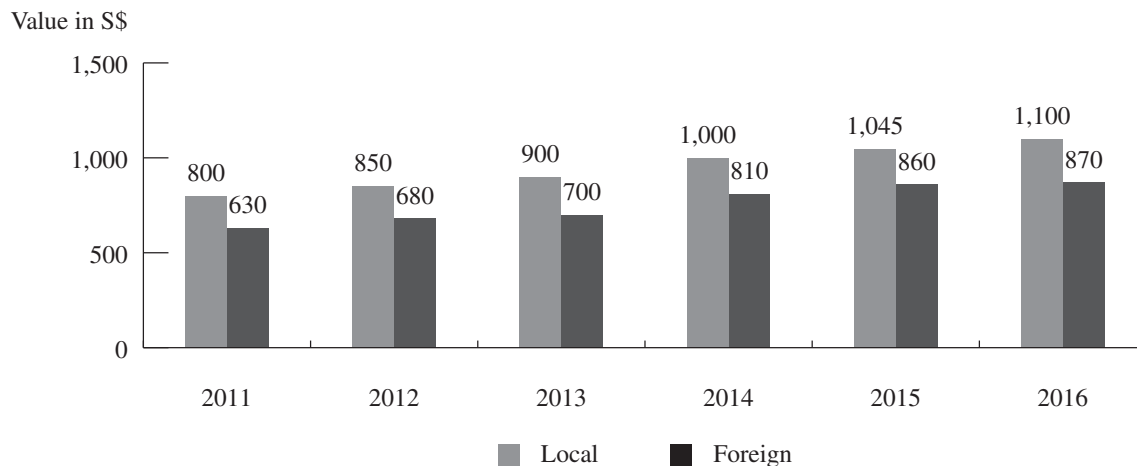
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In addition, as construction demand by value of contracts awarded in Singapore construction industry is expected to increase from 2017 onwards as discussed above, the number of foreign workers with work permit in the Singapore construction industry is also expected to grow to meet the demand in construction activities. As a result, the demand for dormitory service is expected to grow in tandem with the increasing number of foreign construction workers in the industry.

Wages in the construction industry in Singapore

On average, monthly basic wages for local construction workers in Singapore increased from S\$800 in 2011 to an estimated S\$1,100 in 2016, representing a CAGR of approximately 6.6%, reflecting the shortage in local workforce in the construction industry. Average monthly basic wages for foreign workers on the other hand increased from S\$630 in 2011 to an estimated S\$870 in 2016, representing a CAGR of approximately 6.7%⁵. In general, basic wages paid to foreign workers were on average 20% lower compared to wages paid to local workers.

Average monthly basic wages, local vs. foreign workforce, 2011-2016



Source: MOM; Department of Statistics, Singapore (SINGSTAT); Ipsos interviews; Ipsos analysis

INDUSTRY DRIVERS

According to the Ipsos Report, the manpower outsourcing industry and the dormitory services industry in Singapore are expected to benefit from the following industry drivers:

1. Singapore Government’s initiatives to increase overall population

Residential developments in the public sector are expected to increase over the next decade to support the Singapore Government’s initiatives to increase the overall population. The initiative, known as the Singapore Population Whitepaper, is part of the Singapore Government’s

⁵ Basic wage for foreign workforce is estimated based on Ipsos analysis from information gathered from various media sources and Ipsos interviews. This excludes levy imposed by the Singapore Government.

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plans to raise the population level to a range of 6.5 to 6.9 million in 2030 from its then 5.3 million in 2012. Therefore, the demand for residential and infrastructure developments is expected to increase, which in turn will provide opportunities for construction activities.

2. Expected growth in construction activities

Over the last decade, construction developments have been progressively planned and implemented in Singapore to not only accommodate the growing population and needs of the Singapore community but to also sharpen Singapore’s competitive advantage in terms of infrastructure developments. Developments such as new public housing construction, redevelopments of commercial buildings, industrial projects and developments of mega civil engineering projects are all set to encourage the growth of the Singapore construction industry. In addition, the Singapore Government has also announced to bring forward S\$700 million worth of public sector infrastructure projects to start in 2017 and through 2018, which encourage the growth of the construction industry and thus driving the need for additional manpower to support the growth and demand of these construction activities. Such need for sufficient manpower is expected to drive the demand for manpower outsourcing service and dormitory services.

In 2017, construction demand is expected to be higher largely driven by construction demand of the public sector. Key projects in Singapore’s construction industry pipeline for 2017 include (i) civil engineering projects such as the second phase of the Deep Tunnel Sewerage System (DTSS phase 2), North-South Corridor and Circle Line 6⁶; (ii) residential projects such as projects for new public housing construction, continuous upgrading of Housing and Development Board flats and upcoming condominium projects on various government land sites; (iii) commercial projects such as redevelopments of commercial building such as the Funan DigitaLife Mall and CPF building; and (iv) industrial projects such as the development of JTC’s Logistic Hub. As construction demand increases, additional manpower is expected to support the need for these construction activities, which is expected to drive the demand for manpower outsourcing service and dormitory services.

3. Possible increase in contractors’ preference to seek manpower outsourcing services due to potentially more stringent requirements to recruit foreign construction workers in Singapore

According to the Ipsos Report, the MOM is expected to impose more stringent requirements to recruit and maintain foreign construction workers in Singapore. As such, it is expected that these requirements will increase the cost of as well as the legal and administrative burden in employing foreign construction workers. As such, Ipsos forecasts that there will be a higher incentive for building and construction contractors to engage the service of construction manpower outsourcing service providers due to the hassle of the potentially more stringent requirements and the higher costs of maintaining the foreign workers on a full-time basis and handling all the potential additional legal and administrative matters related thereto. As such,

⁶ Source: BCA publication

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Ipsos forecasts that a lower proportion of foreign construction workers will be employed in-house by building and construction contractors in Singapore and a higher proportion of foreign construction workers will be employed by manpower outsourcing service providers, which will drive the demand for manpower outsourcing services when building and construction contractors require additional manpower for their projects.

4. Sustained demand of foreign construction workers due to labour shortage of local construction workers

The Singapore construction industry is generally reliant on foreign workers especially when there is currently a shortage of local workers in the industry, which was mainly due to an ageing workforce, a declining rate of young Singaporeans entering the construction industry and a lack of attractiveness of the construction industry. Due to the same reasons, the shortage of local workers in the construction industry is likely to remain in the foreseeable future. As such, in order to meet the growing demand in the construction industry, demand for construction workers, in particular foreign construction workers, is expected to be sustained, which in turn will drive the demand for manpower outsourcing services and dormitory services.

5. Lack of spare capacity in housing foreign workers internally by employers of foreign construction workers in Singapore and their preference to focus on their principal business activities

As construction demand is expected to increase from 2017 onwards, employers of foreign construction workers are expected to hire more foreign construction workers to support the growth in construction activities. However, employers of foreign construction workers may not necessarily have enough internal housing capacity to house these additional workers due to their limited housing facilities. As such, employers of foreign construction workers may opt to house their workers externally to support and maintain the additional foreign construction workers. This is especially the case for building and construction contractors since they would want to reduce the hassle associated with the housing of their foreign construction workers internally so that they can concentrate on their principal business activity, which is expected to drive the demand for dormitory services.

COMPETITIVE LANDSCAPE AND ENTRY BARRIERS

Key active manpower outsourcing service providers for foreign construction workers in Singapore

As foreign construction workers can be recruited by in-house hiring of most of the building and construction contractors in Singapore, information relating to manpower sourcing service providers for foreign construction workers only is limited and is not readily available. Ipsos has identified seven key active players of the manpower outsourcing industry in Singapore based on its desktop research and primary research, including (i) the results of interviews conducted with building and construction contractors, recruitment agents and manpower outsourcing service

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providers in Singapore; (ii) the research results from various construction industry reports and news articles; (iii) the research results from various labour workforce reports and news articles; and (iv) the research results from various databases such as the Accounting and Corporate Regulatory Authority of Singapore, the BCA and the MOM. The metrics used to determine these industry players in the market was a consolidation of (i) companies with similar business activities or has business focused on providing construction manpower outsourcing and ancillary services; (ii) the ranking provided by building and construction contractors, recruitment agents and manpower outsourcing industry players during the interviews conducted by Ipsos; (iii) total revenue indication (if available)⁷; (iv) number of contracts undertaken by the manpower outsourcing industry players; (v) the number of foreign workers sourced from Overseas Testing Centres and/or recruitment agents; and (vi) the number of deployable workers by the manpower outsourcing industry players. Such seven key active players include our Group, as well as the following six key active players (shown in alphabetical orders):

- ACL Building Project Pte Ltd
- Colwell Construction and Engineering Pte Ltd
- DJB Group of Companies Pte Ltd
- Poh Wah Recruitment Agency Pte Ltd
- Royale Construction Pte Ltd
- TS Group Pte Ltd

Ipsos advised that as the revenue of the manpower outsourcing industry in Singapore and the financial information of some of the aforesaid key industry players are not available, the market share of our Group and the ranking of the industry players cannot be reliably ascertained.

Key active dormitory services providers for foreign construction workers in Singapore

Foreign construction workers can be housed in (i) dormitories operated by operators with a Dormitory Licence (i.e. dormitories that can house 1,000 or more foreign workers) and (ii) other smaller commercial dormitories (the information of which is not publicly available). As there are a lot of smaller commercial dormitories in the industry and there are no public data regarding the revenue of the dormitory services industry in Singapore, information relating to dormitory services provided for foreign construction workers is limited. Ipsos has identified nine key active dormitory services providers for foreign construction workers in Singapore based on its desktop research and primary research, including (i) the results of interviews conducted with building and construction contractors, manpower outsourcing service providers and operators of dormitories with a Dormitory Licence in Singapore; (ii) the research results from various construction industry reports and news articles; (iii) the research results from various databases such as the

⁷ Information of indicated revenue (if available), obtained via public domain or Ipsos interviews.

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Accounting and Corporate Regulatory Authority of Singapore, the BCA, the MOM and Dormitory Association of Singapore. The metrics used to determine these industry players in the market was a consolidation of (i) companies with similar business activities or has business focused on providing dormitory services for foreign construction workers; (ii) the maximum number and the actual number of beds that can be rented out by operators of dormitories with a Dormitory Licence during the interviews conducted by Ipsos; and (iii) total revenue indication (if available). Such nine key active players include our Group, as well as the following eight key active players (shown in alphabetical orders):

- Centurion Dormitories Pte Ltd
- Draco Venture Pte Ltd
- Hi-Tek Construction
- Nexus Point Investment (Owned by TA Corporation Ltd and King Wan Corporation)
- S11 Dormitories
- TG25 Pte Ltd
- TS Group Pte Ltd
- Westlite Dormitory (Tuas) Pte Ltd.

Ipsos advised that as the revenue of dormitory services industry for foreign construction workers in Singapore and the financial information of some of the aforesaid key industry players are not available, the market share of our Group and the ranking of the industry players cannot be reliably ascertained.

Entry barriers

1. Proven track record and relationship with customers

In general, contractors award contracts based on the manpower outsourcing service providers' track record of deploying workers that can meet the requirements of the projects in a reliable manner. As such, new entrants with little or no track record in providing workers for construction projects would have a lower chance to obtain contracts. Furthermore, building and construction contractors may award contracts to manpower outsourcing service providers which have good working relationship with them and good track record in the past. New entrants without established relationship with building and construction contractors in Singapore may find it difficult to obtain contracts from potential customers.

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When employers of foreign construction workers require dormitory services to house their foreign construction workers, they are likely to engage dormitory services providers with track record to house their foreign construction workers in Singapore. Experienced dormitory services providers typically have the ability and capacity to manage/maintain a proper dormitory and the employers of foreign construction workers can have a peace of mind knowing their foreign workers are housed in a safe and conducive living environment. New entrants with little or no track record in providing a proper dormitory may find it difficult to gain the trust and confidence from potential customers to house their foreign workers in their dormitories. Furthermore, employers of foreign construction workers tend to engage dormitory services providers which have good working relationship with them in the past as such dormitory services providers may be accustomed to attending to their specific needs or to the needs of their foreign workers. As such, new entrants in the dormitory services industry may find it difficult to obtain contracts from potential customers.

2. Ability to manage foreign workers

Established manpower outsourcing service providers typically have many years of experience in recruiting reliable and skilled construction workers, and the foreign workers deployed by such manpower outsourcing service providers are capable of handling large construction projects. Such experiences grew over the years with significant investments and management. In addition, experienced industry players would have developed screening mechanisms, enabling them to effectively screen and identify for right candidates for various types of construction works in Singapore. New entrants to the industry generally lack the setup, experience and networks, hence affecting their chance to obtain contracts from potential customers.

3. Possession of a sizeable pool of suitable and trained workers

New entrants to the manpower outsourcing industry in Singapore may not be able to attract and retain a sizeable pool of suitable and trained workers who are available for deployment on short notice. As a result, those new entrants may find it difficult to obtain contracts from potential customers. In addition, in order to possess a sizeable pool of suitable and trained workers, substantial initial capital is required for the new entrant to recruit, train and provide accommodation for its foreign workers. New entrants to the manpower outsourcing industry may face difficulties in surviving in the industry if they do not have sufficient amount of initial capital for such investment.

4. Initial investment of a sizeable dormitory

Building and construction contractors prefer to engage dormitory operators which operate large dormitories to house their workers primarily due to the benefits of housing the workers in one place as described under the paragraph headed “Dormitory services for foreign construction workers in Singapore” in this section. New entrants to the dormitory services industry for foreign construction workers in Singapore may lack the initial capital to build/purchase a sizeable

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building or convert a sizeable factory into a dormitory (factory converted dormitory). Additional cost may also be required to ensure that these dormitories are built or converted to follow and comply with MOM and other agencies’ requirements. These agencies include Urban Redevelopment Authority, Housing and Development Board and National Environment Agency in terms of land use, fire safety and public health. As such, new entrants in the dormitory services industry may face difficulties in surviving in the industry if they do not have sufficient amount of capital for such investment.

Potential challenges

1. Possible changes in regulation in Singapore

Over the past few years, the MOM has introduced various measures to reduce the country’s dependency on foreign construction workers such as by reducing man-year entitlement (MYE) for foreign construction workers, encouraging the increase in building automation, and rising foreign worker levies which will be further discussed below. In the future, the MOM may continue to introduce more measures to reduce the dependency on foreign construction workers, which could increase manpower outsourcing service providers’ costs of operation and potentially affect manpower outsourcing service providers’ ability to recruit foreign construction workers into Singapore. This would also represent a challenge to dormitory services provider if the pool of foreign construction workers shrink as a result of a drastic change in regulations in Singapore.

2. Rising foreign worker levies

Based on the latest available information, the monthly rate of foreign worker levy for basic skilled workers under the construction sector has increased to S\$650 effective from 1 July 2016 and will further increase to S\$700 effective from 1 July 2017 (subject to changes as and when announced by the Singapore Government). Rising foreign worker levy will increase manpower outsourcing service providers’ costs of operations and will therefore be one of the challenges faced by the industry as the profit margin of the manpower outsourcing service providers will be negatively affected if such increased costs cannot be passed onto their customers.

3. Rising cost of renting dormitories

As demand for dormitory service is expected to grow as discussed in the paragraph headed “Dormitory services for foreign construction workers in Singapore” in this section, the cost of renting dormitory is also expected to increase which in turn will increase contractors’ cost of operation and will therefore be one of the challenges faced by the industry.

4. Growing usage of building automation in construction industry

Singapore Government’s initiatives to increase construction site productivity through building automation may reduce reliance on human labour, and therefore the demand for manpower outsourcing services. In 2012, the Minister of National Development of the Singapore

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Government highlighted that Singapore’s reliance on foreign workers can be reduced by the increase in the efficiency of construction works by the use of prefabrication or precast which can be done in factories, thereby reducing the amount of labour required for carrying out carpentry or formworks at construction sites. In addition, any significant technological advancement or industry development leading to mass automation of building and construction processes could be a potential threat to the demand for manpower outsourcing service providers in Singapore. This would also represent a challenge to dormitory services provider if the pool of foreign construction workers shrinks as a result of building automation in construction industry.

With the implementation of prefabricated/precast products (which includes mandatory precast or prefabricated products such as standard precast bathroom units, standard prefabricated staircase and prefabricated prefinished volumetric construction (PPVC) products across residential, office or selected developments), installations can be reduced and thereby reducing the use of labour at construction sites. According to the Ipsos Report, these items, however, are believed to be minor components of the construction processes and as such the impact of application up till present is moderate. Progressively, the Singapore Government is slowly expanding its mandatory components and the impact of such application may increase in the future especially if major components (e.g. columns and beams) are added as mandatory components. However, according to Ipsos, these major components are not easy to be included as mandatory components for prefabrication/precast because of the complexity involving design and logistics as well as safety consideration. Therefore, Ipsos estimates that the Singapore Government’s initiatives to increase construction site productivity through building automation will only have a limited impact on reducing the reliance on foreign workers and hence the impact on the demand for construction manpower outsourcing service providers and dormitory services providers for foreign construction workers in Singapore is expected to be limited.