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Singapore Working Capital Study 2017





Foreword

SPRING Singapore is glad to partner PwC Singapore on the second edition of its annual working capital study for Singapore.

No business can run successfully without effective cash flow management. Even profitable companies can go under if their working capital is not well managed. To survive and grow, businesses need to maintain sufficient cash flow to meet their operating costs and short term liabilities, and invest in new areas for business development.

Effective working capital management can help companies reduce overall financing costs and release working capital for strategic investments for growth. With strong financial health, companies are better positioned to improve earnings and stay resilient in times of economic uncertainty.

Yet, cash flow management has consistently surfaced as a challenge small and medium enterprises (SMEs) in Singapore face. For example, SMEs might not be aware of the optimal working capital level they need to have for their business operations vis-à-vis industry peers.

SPRING's 2016 SME financing survey found that one in four SMEs expect to face delays in customers' payments during the period of prolonged slow growth between 2016 to 2017. This sentiment is echoed in SPRING's 2017 edition of the same survey, which found that about three in five SMEs are currently facing some form of delay in customers' payment.

This prompted our collaboration with PwC Singapore, to extend its annual working capital study to include local SMEs, and provide benchmarks on the working capital performance of companies in different industries.

With this information, we hope that SMEs will be better able to review their working capital ratios against industry peers, address inefficiencies in their cash conversion cycles, and improve their liquidity for sustainable growth.



Ms Chew Mok Lee Assistant Chief Executive, Capabilities & Partnership Group SPRING Singapore





For the second issue of our annual working capital study, we are glad to share the foreword with SPRING Singapore as this study is the result of our collaboration to bring awareness to Singapore businesses' performance around cash management, more specifically, on working capital.

"Cash is king" is an expression that many of us are familiar with and in cases where some might think that revenue is king, then cash would be the queen. With this in mind, optimising working capital is crucial as failure to manage it properly can have serious implications on a business's ability to fund their day-to-day operations, let alone fund its growth.

Our study highlights the negative trend in the past 3 years of cash becoming increasingly tied up. How companies, particularly medium and large-sized businesses, focus on managing and prioritise their working capital performance will be imperative to their growth and overseas expansion.

The most successful businesses focus on working capital as it is essential to a company's financial health and its operational success.



Wee Tze Wee Deals Strategy and Operations Partner PwC Singapore

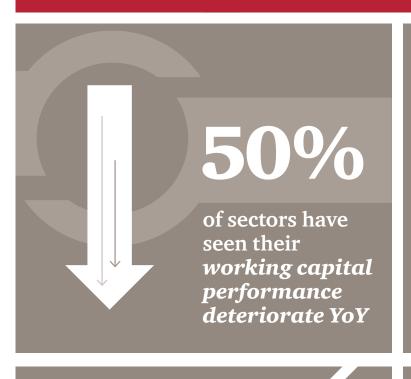


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Access our data explorer tool at www.pwc.com/sg/working-capital to gain an understanding of the average working capital performance in Singapore by industry and by company size.

Key Highlights





Medium-sized companies struggle the most with 18% NWC

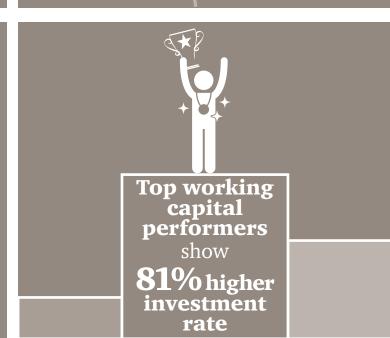


S\$8.7 billion cash tied up in FY16



Investment rate fell 8%

since FY14



Pressure to free up cash is becoming a reality

Since our 2016 Singapore Working Capital study, PwC's global survey has found Asia to be the second bottom performer in terms of working capital (Figure 1) recording 53 Net Working Capital (NWC) days. It is however important to note that regions have different operating contexts and models that will reflect different performances.

This year, our study indicates that Singapore has outperformed the region with an average 41.5 NWC days (Figure 2). However, the picture is not all rosy.

It is worthwhile noting that the businesses studied in Singapore also saw a 2.6% decrease in revenue (Figure 3), a year-on-year increase of 1.3 NWC days, and an average increase of 3.5 NWC days over the past three years that reflects a scenario of increasingly locked-up cash.

It is our opinion that businesses in Singapore, and across Asia, would need to focus more on cash management, specifically working capital. This is essential in better positioning themselves for funding and investments, and to allow them to create greater business value.

Figure 1: NWC performance by region

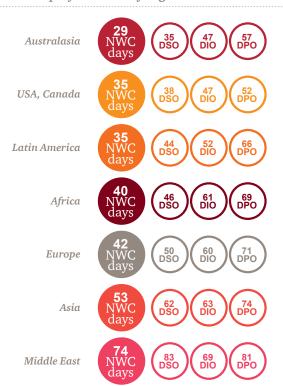
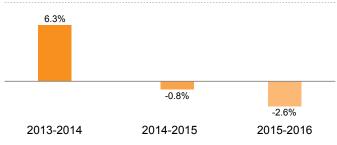


Figure 2: Singapore Net Working Capital days



Figure 3: Change in annual revenue YoY



Note: Marine & offshore companies are not included in the overview calculation

Source: Pressure in the system: Working Capital Study, PwC, 2017

Did you know

Net Working Capital (NWC) days measure the liquidity of a business and how long it takes to convert its working capital into revenue. The longer the cycle is, the longer a business is tying up capital in its working capital without earning a return on it. Therefore, companies strive to reduce their working capital cycle by collecting receivables quicker, improving their inventory management or sometimes stretching their accounts payable. This key performance indicator (KPI) should be considered in the context of the industry that the company operates in.

¹ Pressure in the system: Working Capital Study, PwC, 2017

Working capital performance in Singapore

What's the story?

In this year's study, we looked at 949 public and private companies across 14 industries in Singapore. This excludes Marine & Offshore, which has been reviewed separately in our sector analysis in the third chapter of this report.

The big picture shows a drop of 2.6% in revenue with industries such as energy & chemicals, construction & engineering as well as industrial manufacturing more hard-hit than others.

We have also observed an overall 3% deterioration of NWC days year on year. This has been driven by both a 2.9% increase in Days Sales Outstanding (DSO) – with nine out of 14 sectors registering an increase in DSO – and a 4.1% increase in Days Inventory Outstanding

Figure 4: Key performance indicators in days

34.5

37.5

37.6

40.3

53.9

54.2

38.0

(50.6)

(52.6)

(55.3)

(57.3)

FY13

FY14

FY15

FY16

DSO

DIO

DPO

NWC Days

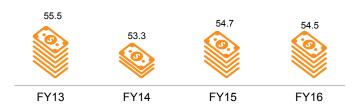
Note: Marine & Offshore companies are not included in the overview calculation

(DIO) – with 10 out of 14 sectors seeing their DIO increase. It also reflects a 3.6% increase in Days Payables Outstanding (DPO), which partially offsets the other two key performance indicators (KPIs), but may not be sustainable in the long term.

In terms of cash, our analysis points to some \$\$8.7 billion of additional cash being tied up. Cash on hand in 2016 has fallen slightly year on year, but it is still an improvement over 2014's record low (Figure 5).

Overall, we believe that, with a number of sectors struggling with revenue loss, it is becoming increasingly important for businesses to focus on their working capital — increasing their control over inventory and receivables, including the days to bill. While the latter is not a component of DSO, its reduction would create a positive effect on cash.

Figure 5: Cash on hand (S\$ bn)



Note: Marine & Offshore companies are not included in the overview calculation



Performance analysis: The working capital KPIs

Figure 6: Working capital performance overview



Note: Marine & Offshore companies are not included in the overview calculation

In 2016, we observed that the average time taken to collect from debtors has increased by 1.7 days compared to 2015 and by 5.9 days since 2014 (Figure 7a). At the same time, DIO performance has also deteriorated, showing an increase of 4.5 days since 2013 (Figure 7b). This indicates scope for a greater focus on inventory management and accounts receivable going forward.

Across all sectors, businesses are, on average, two days slower in paying their suppliers compared to 2015 and seven days slower compared to 2013 (Figure 7c). DPO

performance has been improving steadily over the years, with some businesses working on their payables performance and other global businesses extending their supply chain financing implementation to South East Asia. However, this trend in payment delays also shows the result of liquidity shortages for many others. Again, DPO performance may not be sustainable on a mid-tolong term basis as businesses that delay payments may be forcing their key suppliers to take counter-measures against them.

Figure 7: Working Capital KPI performance breakdown



Note: Marine & offshore companies are not included in the overview calculation



Deep dive analysis

In our study of working capital trends across public and private companies in Singapore, we looked at three main drivers to understand business performance:

Industry

Industry is an important factor as some sectors require a different level of working capital. Sectors can also evolve in different ways year on year depending on market trends, economic environments and geopolitical influences.

Company size

Broadly speaking, larger companies tend to have stronger negotiation power and easier access to cash. On the other hand, small and medium businesses that are chasing expansion usually struggle to find funds for growth and have less weight at the negotiation table.

Management performance

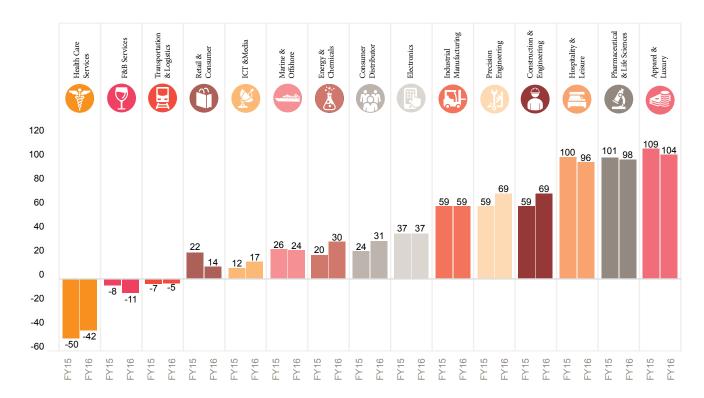
There is a clear correlation between cash management and business performance. Good cash management tends to have a positive impact on the overall business. It is therefore paramount for management to have a strategy and focus around cash, both from a treasury perspective and an operational one. In fact, operations have a significant and sustainable influence on working capital performance.

Performance by industry

Different industries have different needs in terms of working capital. The working capital that a business requires is dependent on their own business model, but can also be highly specific to each sector.

For example, the food & beverage (F&B) sector generally sees short payment terms and mainly in cash, while the construction and engineering sector is typically projectled with milestone payments that naturally lengthen their DSO.

Figure 8: Net Working Capital days by industry (YoY)



Measuring NWC days and revenue growth

8 out of 15 sectors (including marine & offshore) have either seen the performance of their NWC days deteriorate or shown signs of struggles in maintaining their year-on-year performance (Figure 9). Furthermore, 10 out of the 15 sectors registered a loss in revenue year on year.

While some sectors have registered an improvement in NWC days, it is worth noting that this may be attributed to two factors — partly because they were proactive in managing their inventory and/or receivables, and partly because they delayed their payments to suppliers.

Figure 9: Breakdown of YoY increase/decrease in NWC and revenue by industry





Observation and insight

Of the 15 industries surveyed, seven managed to improve their NWC days year on year, two barely maintained their performance and the remaining six saw their NWC days deteriorate.

A number of sectors struggled more than others in managing their working capital:

- Energy & chemicals suffered significant revenue loss (-25% year on year) while struggling to manage their receivables (+29% year on year) and inventory (+38%), and tried to partially counter-balance their cash constraints by increasing their days to pay.
- Precision engineering registered a 10-day increase in NWC year on year. Although the sector saw deteriorating performance across DSO, DIO and DPO, its poor overall performance is mainly led by a seven-day decrease in DPO.

- Healthcare services saw one of the largest deteriorations in NWC days year on year — eight days. Even then, its NWC performance remains the best across all sectors at -42 days. This sector is clearly seeing the effect of cashless payments on their DSO (a four-day increase) while their DPO has also fallen by five days.
- Consumer distributor has recorded a 29% increase in NWC, led primarily by an increase in DIO and DSO last year.
- Information and communications technology (ICT)
 & Media is due for wakeup call with a 41% increase
 in NWC days. However, the sector is still holding
 out with a relatively low 17 NWC days. This drastic
 increase in NWC days demonstrates the importance
 of constant vigilance over cash management.

Did you know

KPIs provide clues into what the potential issues of a business could be. DPO performance should be aligned and balanced with DSO performance — if suppliers are paid before customers pay, external financing will be needed to run the business.

Drilling down into DSO, DIO and DPO

Like NWC days, we recognise that different industries have different benchmarks when it comes to DSO, DIO and DPO. For instance, hotel resorts and leisure facilities tend to carry large amounts of inventory that translate into a high DIO across the hospitality & leisure sector. Meanwhile, in construction & engineering, businesses typically work on long-term projects, which means longer payment terms in their accounts receivables. In each case, we believe there is still room for improvement, but this must be contextualised for the sector, and the cash that a business needs to operate.

Observation and insight

Across the majority of sectors (10 of the 15 studied), we have noticed a positive trend in DPO improvements, although in some cases, this might be driven by delaying

payments to creditors. This trend is now beginning to impact DSO performance. We are seeing an increase in debtor days across 10 sectors — meaning that customers are paying later. DIO is also increasing across the same number of sectors, once again signalling that businesses need to sharpen their focus on inventory management.

The bottom performers for year-on-year DSO increase are the energy & chemicals, hospitality & leisure and ICT & media sectors, while the apparel & luxury sector improved theirs by 14%. Meanwhile, DIO bottom performers include energy & chemicals with a 61% year-on-year increase, as well as the electronics sector.

Looking at DPO performance, most sectors recorded a year-on-year improvement. However, precision engineering, pharmaceuticals & life sciences, and healthcare services sectors bucked this trend with a shrinking DPO that negatively impacted their overall performance.

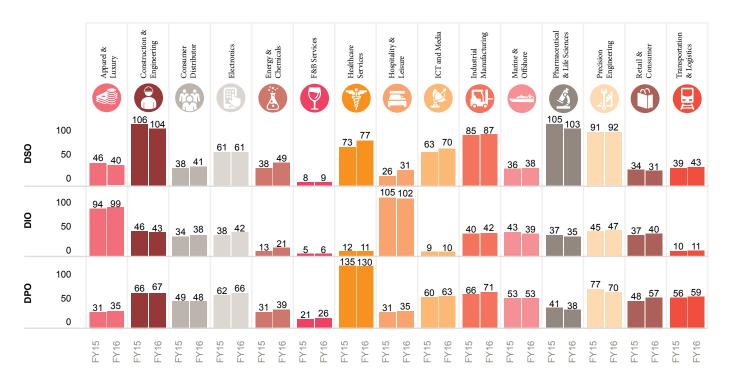


Figure 10: Breakdown of working capital KPI performance by industry (YoY)

Did you know

DSO performance should always be compared to the standard terms granted to customers. For example, a business with a 45-day DSO and 30-day standard terms is likely to be suffering from cash collection issues or internal non-compliance to terms policy.

Improvers and non-improvers

When considering the overall performance of each industry, it is important to note that this can be influenced by the number, type and individual performance of companies that contributed to the KPI measurement.

In certain cases, poor year-on-year performance of very large companies may drive the performance of its sector in one direction even though the majority of businesses in that sector may have behaved in a different way. Because of this, we have identified the number of improvers and the non-improvers in each sector (Figure 11).

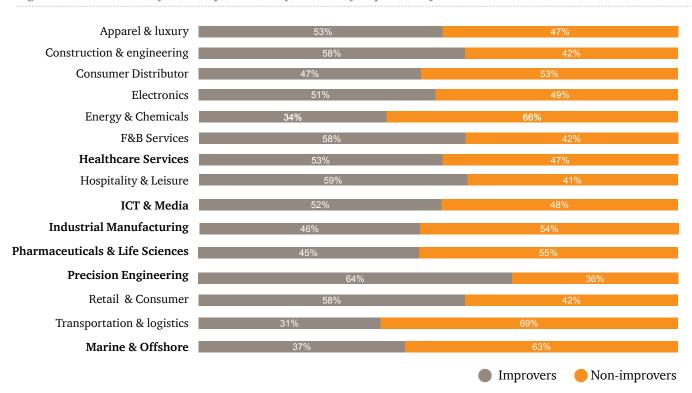


Figure 11: Breakdown of NWC days YoY – % of number of improvers by sector

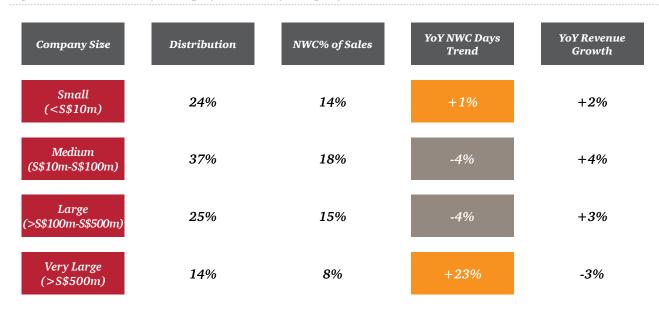
Our analysis has produced some interesting insights:

- 1. In healthcare services, overall NWC days deteriorated year on year from -50 days to -42 days. However, this was mainly driven by the poor performance of 6 of the top 10 companies by revenue in the sector. In reality, majority of the businesses in this sector recorded improved performance.
- 2. The overall performance of the **ICT & media** sector was partially led by the poor performance of 7 of the top 10 companies by revenue, some of which saw their NWC days more than double year on year. Outside this group, over half of the businesses in the sector actually managed to improve their NWC days year on year.
- 3. As a whole, **industrial manufacturing** barely maintained its performance with a slight shift from 58.9 to 59.2 NWC days. This is consistent across the sector, with the majority of its businesses showing a deterioration in performance year on year.

- 4. In the **pharmaceuticals & life sciences** sector, the good performers showed such significant improvements that they effectively counteracted the increase in NWC days of poor performers.
- 5. In **precision engineering**, despite 55% of all businesses improving their NWC days, the poor performance of 86% of the very large companies impacted significantly the overall year-on-year deterioration for the sector.
- 6. After a difficult past few years, the marine & offshore sector continues to suffer with 63% of its businesses seeing the performance of their NWC days deteriorate year on year. Notably, however, some of the larger players have helped to substantially improve the sector's overall performance by increasing their DPO, thereby positively impacting their NWC days.

Performance by company size

Figure 12: Breakdown of NWC performance by company size



Different size, different challenges

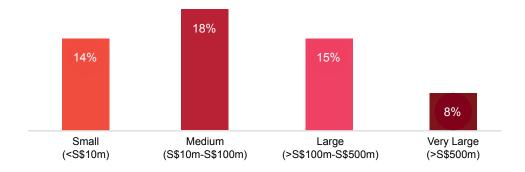
In this year's study, 24% of the companies analysed fall into the 'small business' category with revenue not exceeding S\$10 million. In terms of NWC as a percentage of sales, this segment recorded 14% — compared to 18% and 15% by their medium and large counterparts respectively (Figure 13). What does this mean?

Small businesses tend to have less cash to play with and, therefore, are forced to pay closer attention to how it is used. They also tend to have simpler operations, which makes it easier to control.

Medium-sized companies, however, usually grapple with growth challenges. They are struggling to secure funding on one hand, and juggling operations, investments and risks on the other. In this case, inadequate proficiency in managing a growing business can add to poor performance. Their ability to recruit and retain skilled employees also factors into this equation, as the remuneration packages that they can offer often pale in comparison to that of larger companies.

It follows, then, that large and very large companies tend to perform better in this regard, with NWC percentage of sales coming in at 15% and 8% respectively.

Figure 13: NWC as % of sales by company size



Did you know

What does percentage of NWC mean? This KPI is a measure of the growth funding necessary for a business. A company that carries 20% NWC will need S\$200,000 cash to fund each S\$1 million growth; while a business with 10% NWC will only require S\$100,000 for each S\$1 million growth.

Different challenges, different strategies

In 2016, very large companies have seen their NWC % deteriorate in part due to negative revenue growth but they have focused their efforts on investments, and have an impressive 25% year-on-year increase in their investment rate to show for it (Figure 14).

Meanwhile, our observations point out that medium-sized and, in particular, large companies show a negative trend in investments even though they have registered a yearon-year revenue growth.

In the small company segment, we have noticed a higher investment rate, but this only translates into a small 0.1 point year-on-year improvement.

Figure 14: Breakdown of investment rate by company size



Drilling down into DSO, DIO and DPO

The performance of the three main streams of working capital KPIs (Figure 15) supports the trend we observed in NWC %. DSO, DIO and DPO numbers are indicating that medium-sized companies are indeed struggling with their accounts receivable, accounts payable and Inventory management. In fact, DSO is at its highest for medium and large companies (at 74 and 79 days respectively). Many of these companies might take on more risks with longer payment terms in a bid to quickly increase sales — thereby losing control over their receivables.

We can see that the same trend is happening with DIO. Again, medium and large companies are carrying more inventory to better serve their customers while pursuing growth plans. In our opinion, these companies will need to start implementing tools to manage their inventory in a leaner and more efficient way before they can see improvements in this area.

Very large companies, instead, have the tools and systems they need, they also benefit from highly skilled people and access to a wider range of financing solutions as well as higher bargaining power, ensuring a better management of their operations.

Figure 15: Breakdown of working capital KPI performance by company size in days





Management performance

In our analysis, the companies that have been able to achieve top quartile working capital performance have outperformed their peers across various key metrics, effectively demonstrating the impact of working capital efficiency well beyond cash:

- Top NWC performers show a higher investment rate.
- Top performers get paid 40% faster than bottom performers.
- Top performers hold four times less inventory.

Figure 16: Top and bottom performers

Top performers (upper quartile)



Bottom performers (lower quartile)

Did you know

Investment rate indicates how much a business is investing to facilitate growth by measuring a company's investments in assets that might increase profits in the future.



Next steps forward

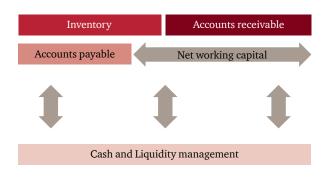
Improving working capital performance is achieved by optimising the end-to-end cash cycle through operational improvement across accounts receivable, accounts payable and inventory management. A strong framework approach is necessary for a sustainable and long term improvement.

Levers for working capital success

There are four major levers for working capital success:

- 1. Commercial terms Higher performing companies understand all transaction terms in place and match these with their cycles and needs
 - Understand all terms in place
 - Match terms with size and nature of contract
 - Establish 'preferred term' based on internal and external best practices
 - Development of 'model' to use in negotiations and term adoption
- 2. **Process optimisation** Leading players 'stress train' their working capital process, striving to balance the trade off between cash, cost and service
 - Develop understanding of each process
 - Walk through testing and process optimisation
 - Challenge individual steps of process with aim of optimising full process with regard to WCM
- 3. **Compliance and monitoring** Successful companies are measuring compliance with terms, processes, policies and procedures with KPIs to monitor working capital
 - Data analysis to measure compliance with terms
 - Root causes analysis to understand key drivers for non-compliance
 - Evaluation of changes needed to ensure compliance and valuation of potential cash impact
 - Cashboard in place to measure performance and identify risks and improvement opportunities
- 4. **Cash culture & management** High performing businesses benefit from top management sponsorship and clear accountability for working capital management
 - Cash and Working Capital part of performance measurement and incentives
 - Accountability and responsibility for WCM performance and management
 - Involvement of top managers (from a monitoring perspective)

Components to tackle





Methodology

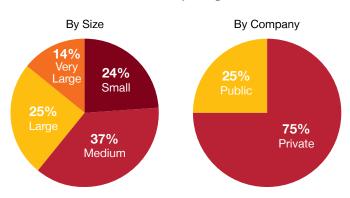
PwC and industry transformation maps (ITM) sectors legend		
PwC sectors	ITM sectors*	
Energy & Chemicals (manufacture and wholesale of fuels, refined petroleum products, chemicals and electricity)		
Electronics (manufacture & wholesale electronics components & devices)		
Precision Engineering (manufacture of precision devices and components up to 10 micron level)	As per respective ITMs	
Marine & Offshore (chartering of ships, barges and boats with crew, shipping lines)		
ICT and Media (software and programming, telecom equipment & services, printing & publishing)		
F&B Services (fast food outlets, restaurants)	Food services	
Industrial Manufacturing (manufacture & wholesale of machines & industrial equipment)	Include Food Manufacturing; Aerospace	
Construction & Engineering (building construction & related equipment and services)	Include Construction; Real Estate	
Transportation & Logistics (including airlines & port operators)	Include Air/Sea/Land Transport; Logistics	
Hospitality & Leisure (hotel chains, tour operators and cinema)	Include Hotels	
Apparel & Luxury (wholesale & retail of apparel and luxury items)	Part of retail	
Retail & Consumer (Dpt. stores, retail of household furnishing and appliances, cosmetics & services)		
Healthcare Services (acute hospitals, clinics and medical services)	Part of healthcare	
Pharmaceutical & Life Sciences (mainly wholesale)		
Consumer Distributor (general wholesale trade)	Part of wholesale trade	

^{*}Other ITM sectors (Cleaning, Security, Education, Professional Services, and Financial Services) were excluded due to statistically insignificant data size.

This year's study comprises a total of 1,020 public and private companies across 15 sectors in Singapore. The Marine & Offshore sector and its 71 companies was only included in our performance by industry analysis.

Public company data were sourced through S&P Capital IQ, based on the location of company headquarters. Private company information was provided by SPRING Singapore. All figures used are financial year end figures. Due to the disproportionate efforts to improve working capital performance towards the year end, the real underlying working capital requirement within reporting periods may be higher. Also, off balance sheet financing and the effects of asset securitisation have not been taken into account.

Breakdown of companies





Metrics and calculation

Metrics	Overview	Basis for calculation
DSO	DSO is a measure of the average number of days that a company takes to collect cash from their customers.	Accounts receivable/sales x 365
DIO (Days Inventories On hand)	DIO gives an idea of how long it takes for a company to convert its inventory into sales.	(Inventory / Sales) x 365
DPO (Days Payables Outstanding)	DPO is an indicator of how long a company takes to pay its trade creditors.	(Accounts Payable / Sales) x 365
NWC days (Net working capital in days)	NWC days indicates the length of time it takes a company to convert resource inputs into cash. This is commonly referred to as the Cash Conversion Cycle (CCC).	DSO + DIO - DPO
NWC % (Net working capital %)	NWC % measures working capital requirements relative to the size of the company.	(Accounts Receivable + Inventories – Accounts Payable) / Sales
Investment rate	Investment Rate measures the amount of investment relative to the revenues of a company.	Capital expenditure/sales
EBITDA margin	EBITDA margin is an indicator of a company's profitability level as a proportion of its revenue.	EBITDA/sales
EBITDA	EBITDA is an indicator of a company's profitability.	Public: EBITDA (from S&P Capital IQ)
		Private: Profit before Tax + Depreciation & Amortisation
Top/Bottom Performers	Top and bottom (quartile) performers are determined by the NWC days within their respective sectors.	Top: 1/4 (n+1)th Term Bottom: 3/4 (n+1)th Term

Get connected with the right support

How PwC can help

Examples of areas where PwC could help you to release cash from working capital:

Accounts receivable

- Tailored, proactive collections
- Credit risk policies
- Aligned and optimised customer terms
- Billing timeliness & quality
- Contract & milestone management
- Systematic dispute resolution
- Dispute root cause elimination

Inventory

- Lean & agile supply chain strategies
- Global coordination
- Forecasting techniques
- Production planning
- Inventory tracking
- Balancing cost, cash and service level considerations
- **Inventory parameters** & controls defining target stock

Accounts payable

- Consolidated spending
- Increased control with centre-led procurement
- Avoid leakage with purchasing channels
- Payment terms
- Supply chain finance benefits assessment & implementation support
- Payment methods and frequency
- Eradicated early payments

Our authors



Wee Tze Wee Partner, Deals Strategy and Operations **PwC Singapore** T: +65 6236 7628 tze.wee.wee@sg.pwc.com



Caroline Clavel Director, Advisory **PwC Singapore** T: +65 6236 3047 caroline.yl.clavel@sg.pwc.com

Useful resources for your business' financial management needs

SME Centres

SMEs in need of financial management advice can approach any of the 12 SME Centres for free business diagnosis and basic advisory services on budgeting, cash flow management, and financial statement analysis.

An initiative by SPRING Singapore and five trade associations and chambers, the SME Centres help local enterprises improve their capabilities, increase productivity and grow their business.

For more information or to book an appointment with an SME Centre business advisor, visit www.smeportal.sg/smecentres.

SME Portal

SMEs can access financial management toolkits, business guides and best practices at the SME Portal – the first stop for business information. The Tech Depot on the SME Portal also provides SMEs with easily adoptable technology solutions that can optimise their finance operations.

Visit www.smeportal.sg for more information.







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