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MARKET IN MINUTES
Savills Research

Co-working Space – Dead or Alive after COVID-19. A Thought Experiment

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Arising from the need to social distance to mitigate the spread of COVID-19, the question that arises in the minds of many will be the state of the co-working industry in a possible new epoch. Market observers have been painting two scenarios, one is where they will continue to flourish, with the weak dying out (let's call this state A), two is the business model dies off (State B).

To me, there is no definitive answer at the start. Why? Its because these two states are not the only possible states there are. To begin a discussion on this question, let's simplify things to the two states mentioned above.

Let us begin by having a linear system of states

$\alpha\,|A\rangle + \beta\,|B\rangle$
where $\alpha, \beta \in C$

The probability of being in state A after COVID-19 is proportional to $|\alpha|2$and the probability of being in state B after COVID-19 is proportional to $|\beta|2$. Also, $|\alpha|2 + |\alpha|2 = 1$

This probabilistic measure happens if we repeat the experiment multiple times. Unfortunately, in life, there is but just one experiment. That is, you can't have groundhog days.

Therefore, for us, the state we finally arrive at is either going to be A or B, nothing in between. Now here, we can start getting intense. Instead of defining the outcome as in just two states, A or B, why not include a host of other states. This will mean that in just one experiment, in the states that can emerge in a post COVID-19, we have a multitude of superpositions of where the co-working business can lie. We can define further states, by no means exhaustive, as:

A1. Co-working continue to flourish in its existing business model;
A2. Co-working continue to flourish with some tweaks to the business model;
A3. Co-working continue to flourish with the weak falling by the wayside;
.
.
.
Ai. Co-working heading neither here nor there but still having some presence in the office market landscape;
.
.
.
An. Co-working is left in a skeletal state like a cottage industry.
B1. Co-working failing in the short-run after COVID-19 but reviving when memories post-COVID-19 run short;
B2. Co-working failing in the short-run.....
.
.
.
Bi. Co-working changes its business model and struggles for a while before collapsing;
.
.
Bm. Co-working fails and gets disbanded as a concept altogether.
So now we can have an ensemble of (nA + mB) states, each of which is a possible outcome for the co-working business post COVID-19 and all are existing at present before we get to the stage when we can observe what really happened to the industry at a particular time in future. So, which do we choose? Given that we can't replicate the experiment on reality infinitely, we have no way to find out the probability of each outcome. That is, we do not know what the probabilities are for state A1, A2,.....,An, B1, B2,.....Bm.

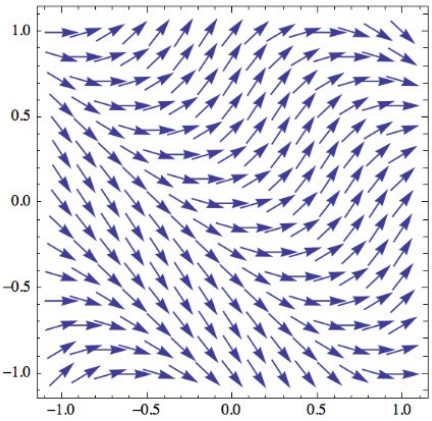
This also means that the myriad of articles written on how COVID-19 will change the landscape of the co-working business model are each an opinion of a particular state i.e. state Ai or Bi. We will not know the entire range of outcomes from reading all these write-ups because there are infinite possibilities on the variation of each state, some of which no one has touched on. Unfortunately, in forecasting, we have to make a decision on which is the most likely outcome. So how to do that when we cannot repeat the COVID-19 – co-working experiment many times over?

The interesting thing about the above concept that given a fresh set of states of outcomes, we do not know the exact or probabilistic outcome from conducting one experiment. This is the same principal in quantum systems and the same can be said of our economic world. However, in physics, we already know the possible states of say a photon or an electron plus the probability of each occurring if the experiment were conducted again. This is because in a controlled environment, an experiment can be conducted many times. But not so in life.

In almost all analysis that I have come across, market observers arrive at conclusions using their own set of logic, mostly built on well-sounding arguments built around pre-determined outcome. From my 30 years of observation, most get it wrong. And if they are right, many have been right for the wrong reason.

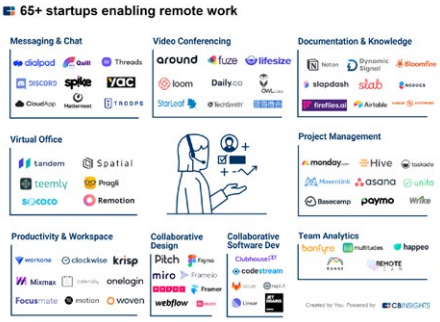
Why there is no breakthrough in forecasting is because most methods lean on broad correlations, in fact too broad, moulded from past experiences (qualitative forecasting) or from selective time series data (quantitative

Figure 1: Vector field of discrepancies (For illustrative purposes only)



Source: Mathematica

Figure 2: In vogue start-ups arising from COVID-19



Source: CBInsights.

forecasting) and then extrapolating into the future. But few look at the panoply of actors that play out the act. So if no one attempts to understand the key drivers of the market(s) or industries that they are analysing, then 'experts' or lay, the superposition phenomenon will always emerge. In other words, they cannot tell the one outcome from another with confidence. Each is just an point in the state space. (Of course, those who have offered a view will stand by it as the most likely outcome, perennially with the barring unforeseen circumstances caveat added. But there is personal bias and we have to try to eliminate it.)

From the superposition principle, one cannot and unbiasedly tell with certainty which will or is likely the outcome in the defined period ahead (because you cannot repeat the experiment on life). But that may be partially skirted over if we analyse the situation using the technic explained below. Approaching it this way gives the forecaster better tone, allowing him/her to lock onto the final outcome(s) – plural because while there may be more than one outcome. The field of possibilities may be broad, but if you can map out the contours within this field, you can have greater confidence how things will flow within this vector field (see Figure 1 and 3). In the current approaches, the outcomes are either way too many, biased by personal or opinions of cultic thought leaders.

Returning to the analysis. If we look at the states from another perspective, we can 'cheat' to get fuzzy probabilities of that one outcome. While in the wonky world of quantum systems, realism is something that cannot be applied, like we cannot measure beforehand what the exact outcome is. However, in 'reality', we may just be able to! How?
Simply by conducting an exhaustive identification exercise on who the decision makers are, that is, who are the main actors behind the industry. If one can do that, then one paint a fuzzy outcome. Drawing on lessons from the past is not the main approach here. Instead, we draw on the set of information (of the main actors/influencers/factors) we have at present and assemble a picture of what the future may look like based on their likely behavioural patterns.
For our analysis of co-working space, we begin with a list that hopefully covers the majority of influencers within the co-working business. Then we will discuss the likely behaviour each will take post COVID-19 and then end with a look at the possible interactions between each influencer.

1. Funders
2. Tenants
3. Landlords
4. Operators
5. Regulators

For each of these points, we will assign +1 if the outlook looks positive and/or neutral and -1 if it is negative. We will not have a 0 in this sign sequence.

FUNDERS

Even before the viral outbreak, co-working operators were far from reaching the point of generating self-sustaining cashflow. Depending heavily on continuing cash injections by venture capital funds or from Initial Public Offerings, they banked on the investor philosophy that was open to keeping their cash burn operations going to gain market share. With the pandemic, funders today are finding it difficult to raise new cash to feed existing or new start-ups. Instead, with whatever dry powder left, they may veer towards funding intuitive or hottest ideas of the day, like start-ups which help you work from home. (See Figure 2)

Even if daily life were to return to normalcy, it is unlikely that private equity risk funders will be able to get back to where they left off towards late 2019. That leaves the business model of burning cash to capture market share, or to exponentiates ones cartographical (by micro-location or by countries) cover untenable.

For the funders, we will therefore assign a -1 to it.

TENANTS

A recent visit to a new co-working facility outside the CBD revealed something ironical. A multinational company had taken up membership for a few dozen of their staff. Yet, none were present because they had to work from home (this was prior to the lock down which began on 7 April 2020). Prima fascia, this shows that setting up in a co-working facility is no panacea if there is a pandemic. It works well if there is no lock down of the economy and/or the need to social distance. The experience from COVID-19 would make corporate decision makers cringe at the idea of sharing and co-mingling with staff from other companies, even if it cultivates creativity and productivity. This is a major issue that co-working operators need to confront and think through a resolution.
Tenants are still in need of flexible office space options. No doubt about it. The International Financial Reporting Standards 16 requires all lessees to capitalise virtually all leases. The impact of this on companies in the Banking and Capital Markets sector is not insignificant because the Basel Committee on Banking Supervision had on 6 April 2017 issued an FAQ that made it clear that leases will be included in the computation of risk capital for regulated banking institutions. As banks often sign on long term leases, there exists the need for solutions to remove or reduce the capital charge from their balance sheets. This accounting treatment is pro-co-working.

The lock downs across economies has anecdotally shown that working from home, is not conducive for many in front line or middle office jobs where seamless communication amongst colleagues is not an option (like a quick traipse to a colleague to exchange information instead of taking extra steps to set up a rather non-collegial conference call). The necessity for some functions/situations to have face-to-face meetings is exemplified in the case of a debt moratorium extension granted to a beleaguered water resource company here. The moratorium was extended because due to the lockdown, they could not hold face-to-face scheme (of arrangement) meetings.

On another point, air-travel post pandemic may be more restrictive. This may be due to the possible sporadic flash or seasonal outbreaks of the virus and environmental reasons arising from combatting global warming. Companies may reduce air travel and may set up self-sustaining overseas branches. This may go either way for Singapore, in that companies may bulk up foreign staff or reduce reliance on them and hire more locals. Either way, tenants will require real estate solutions.

For the tenants, we will assign a +1.

LANDLORDS

If lock downs ends, demand for new office space may be relegated to a subdued norm. And in response to an increasingly tough rental market, landlords may begin to offer more services

to retain tenants or potential ones. It is just a matter of time before most large landlords, those who are legally permitted to operate non-real estate related businesses, begin to offer flexible office work spaces. I refer only to landlords who, under the current legislation, are permitted to operate other businesses. For REITs, they will have to find a way around this because they are not permitted to operate non-related businesses. However, for those who do not have their hands tied, they will very likely venture into the provision of flexible work spaces.
One disruptor to traditional office buildings is the possible birth of a new class of space for business continuity planning (BCP) usage, industrial space. However, the permissible uses under the present B1 grouping will have to change. We are not advocating an island-wide change to allow BCP uses for industrial space, but only for designated central and regional locations, taking into considerations issues such as easy accessibility to the MRT. Also, guidelines like the maximum space that can be taken by a single tenant for BCP purposes should be drawn up. The fear that this would drive up industrial rents can be overcome if the authorities provide for such premises where the rent is varied by location, like the concept of how land rent rates are set. In this regard, going forward, the move may have to be away from laissez-faire ways.

For landlords, we will assign a -1.

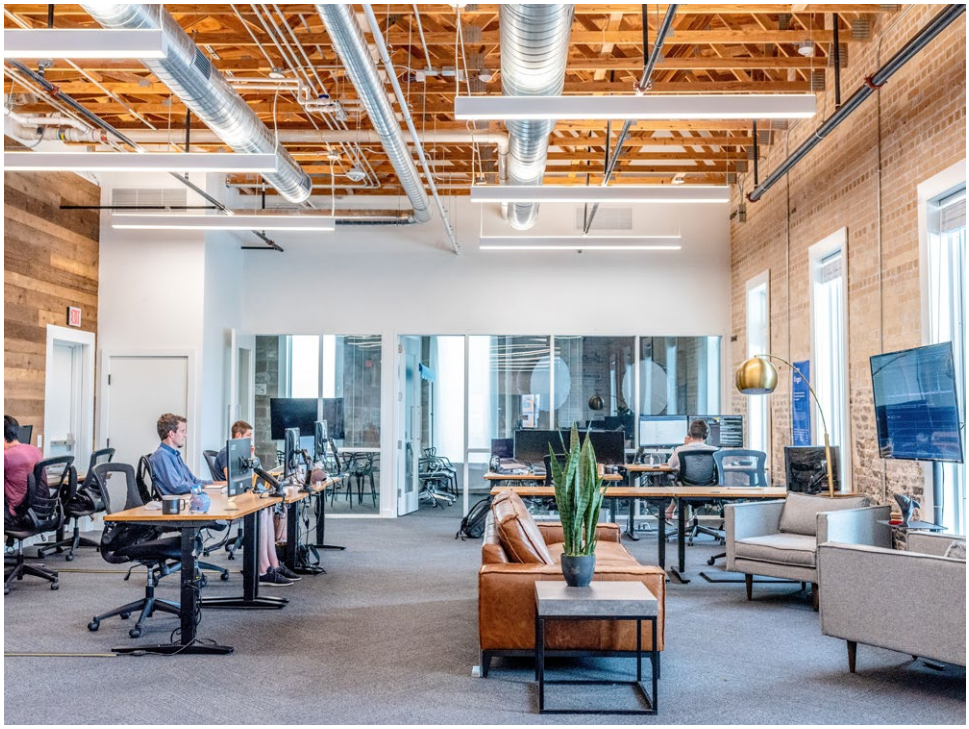
OPERATORS

Companies with a strong cash position offer some protection against the disruption caused by major sectorial lock downs. Yet, it is still a matter of time before that armour of cash is breached. Co-working companies which have expanded too fast are now facing the wall and the stronger ones will soon be in the same quandary. However, the successful serviced office providers who branched into co-working may be able to ride through this storm as their business model is one that was part of the 'old economy', one that lives on free cash flow. For the co-working operators who are able to change their business model to rein in cash burn and treat it like a normal business, this is a positive.

For operators, we will assign a +1.

REGULATORS

In addition to the need to look at the possibility of allowing office BCP usage in industrial properties, regulators, either locally or globally, may develop further rules on office space worker density, stricter BCP guidelines or other measures that mitigate future pandemics. All these work towards the fragmentation of the office demand landscape. Additional regulations may also arise from the global warming front. Any attempts to rein in on CO_2 emissions will correlate with the reduction in the burning of fossil fuels. This means air travel may be priced to disincentivise this form of people movement. (Presently, the rate of advancement in battery technology is not fast enough to have electric planes fly 600 miles with 150 passengers before 2050, the cut off year to prevent catastrophic



climate change.) This ties in with the point raised in the section on tenants because they may decide to do away with regional HQs and instead treat each market as a self-contained unit – marketing, finance, production, sourcing, manufacturing etc.
There had been reports on how working from home reduces one's carbon footprint, albeit the issue is not so clear cut. If governments act collectively on the need to reduce carbon emissions, then some form of work from home incentives may be granted to companies if their staff do so. This is not beneficial to the co-working industry though.

For regulators, we will assign a -1.

TECHNOLOGY

This can be a threat or a help to the co-working industry. A threat if it makes working from home as seamless as working from the office. As it stands presently, technology providers are mainly standing on their own, separate from the co-working industry. Figure 2 shows a sliver of the possible 'new kids on the block' that are attempting to catalyse and ingrain the work from home culture. On this front, technology will only improve over time and all these conspire to increase productivity and creativity from the work from home stage. The finality will come if the cost and productivity working from a home platform clearly exceeds that from a typical office set-up. At present though, we believe that it is far from neutrality
.
For technology, we will assign a -1.

JOB MARKET

Arising from the fear of this pandemic, businesses are likely to develop general strategies to handle uncertainties better. The use of more contract staff could be a way to cut and run from having too much luggage when uncertainties arise. This could mean having more part-time or contracted staff who may spend the majority of their time working from home. The impact of this is a contraction in office space demand, whether it is in the form of direct leasing or from flexible office space demand.

For the job market, we will assign a -1.

EMPLOYEE HOME SET-UP

We include this as a separate category rather than subsuming it under Tenants and Job Market. By this, we mean whether employees can easily set up the physical infrastructure (ergonometric designed tables and chairs, higher capacity data connectivity with a similar level of data security as they would get working from office, computer and accompanying paraphernalia e.g. colour printers, replenishment of office stationary, environmental control systems etc) while also creating a holistic environment to make working from home as conducive as from the office (free from non-work-related distractions, e.g. divided attention to work due to child matters, the need to cook, more breaking off periods for running errands etc.), From the recent lock downs, other than the points mentioned under Tenants, there are pitfalls on the infrastructural and environmental fronts. Therefore, an office space is still necessary

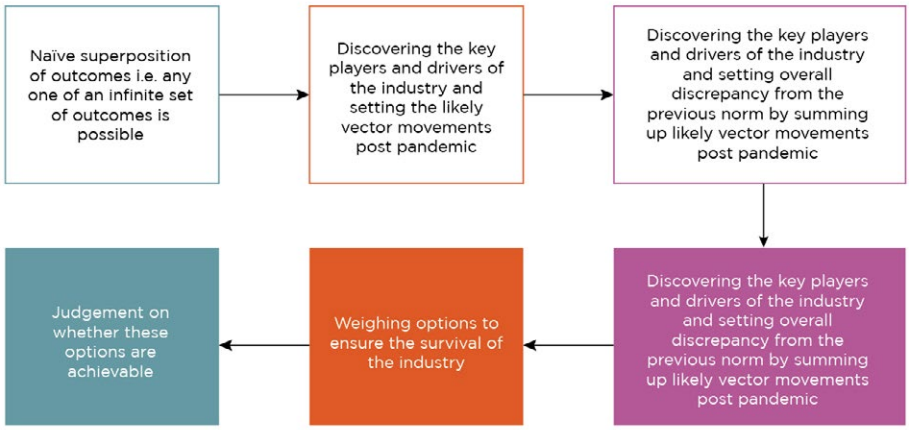
For this category, we will assign a +1.

The summary influence of all these factors is shown in Figure 3. This is a diagram of the discrepancy the industry can stray from its pre-pandemic norm. It represents prior outlook, one that is before we take action to change it. As you will see, for the eight factors considered, the game ended at -2. This means that by the time economies are sequentially unlocked, the industry is in significantly worse off state than before the COVID-19 infections began.

Figure 3: Post vs pre-pandemic discrepancy of co-working's prospects – Prior estimate

0 is the start i.e. where the industry last stood before the pandemic
Source: Savills Research & Consultancy

Figure 3 is a flow diagram of how we arrived at our conclusion.



Is this method fool proof? Definitely not! Some of the deficiencies can be:

1. Failure to identify a key factor. This factor can be in existence or it may rise in importance over the course of time.
2. Possible entanglement of states. For example, one state may be correlated to the other, say tenants need to get leases off their balance sheet may be correlated with regulation. So one state cannot exist without the other.

BUT IS ALL LOST FOR THE INDUSTRY? HECK NO!

How can the industry steer itself back to either a slight negative (-1) or neutral position (0)? To get to -1, we just need look at the -1 ranked influencers that co-working space operators can 'negotiate' a deal or be part of the influencing factor. By 'negotiate', we mean adapting or transforming their existing business model to suit the forces that are beyond their control, e.g. Technology, Job Market etc. We will discuss each of the negative signs, i.e. the -1s.

TECHNOLOGY

Prior to the pandemic, some co-working firms labelled themselves tech companies. However, to pundits, they really saw them as modern real estate companies set up arbitrage on the length of leases between landlords and their members. In a post pandemic world, the opportunity arises for these companies to truly classify themselves in the tech space. How so?

Well, co-working companies can develop or graft a technology arm to its original business model. The fastest way to accomplish this is to acquire a business. They can easily help tenants, be it theirs or third parties, set up home offices for their staff.

LANDLORDS

The possibility of landlords entering the flexible working space business is not just a possibility but has been taking place even before this outbreak. Rather than fight them, co-working companies may instead form symbiotic relations with landlords by either taking stakes in their flexible space start-ups or managing such space for them. Some co-working operators are already collaborating with landlords, but the trend line could steepen, and we could see more and more landlords getting into this business. If co-working space providers continue to work in silos, they could potentially be elbowed out from the marketplace.

OPERATORS

There may be a need to form alliances. Much like airlines, co-working operators may have to develop a form of code-sharing agreements amongst themselves. This could extend across borders so that each operator will not be overly stretched trying to expand overseas. They will have to focus mainly in their domestic markets and offer their clients reach in other countries through the alliance network.

FUNDERS

Rather than lean heavily on a series of cash injections, co-working companies should start looking at the good old ways of running a business focused on the generation of positive free cash flow. In the process, they may need to cull branches both domestically and globally. Although that may reduce their reach, nonetheless, they can still achieve a vicarious footprint through alliances, mentioned prior to this point.

CONCLUSION

There are no standard tools for analysis and forecast which we can draw on in a market disruption like this. When forced to provide one, if there had been precedence, they will draw on data extracted from those times and wring out a forecast. But when people are grappling with unknowns, many will tend to argue their case out much like a school debating contest where each team is assigned a motion. Presently, if there was a choice, most debaters would rather gravitate towards choosing the motion that supports the demise of the co-working industry. That is likely so because prospects for the co-working industry, based on a naïve and intuitive basis, it doesn't look good at all. However, because many who are giving their opinion have vested interest in the well-being of the business, either directly or indirectly, they are likely forcing themselves to generate a promising outlook for the industry. However, this is a biased and contrived approach to analysis.

However, by approaching the forecast from a thought experiment, its future looks much better than expected. Before the pandemic, the industry was on a crash dive. In the future, it may have better relevancy to the market than before the outbreak!

The catch is that the industrial model and relationships need to change with investors and operators orienting away from a college dropout's vivaciously spun, but naïve, vision of success, to how a shrewd old economy businessman would approach running a company. The lockdowns arising from the pandemic may buy time for the industry players to think about how they will need to evolve drastically in order to come out stronger than before coming into this whole chaos.

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