



EFCG
Environmental Financial
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EFCG Special Briefing: *Impacts of COVID-19*

on Architecture, Engineering, and Construction Firms

Overview

As the COVID-19 outbreak continues to unfold around the world, reports on its potential economic ramifications increase rapidly. Impacts such as supply chain interruptions from China's large-scale efforts to contain the virus, disruptions in business activities and travel, and volatility in demand for products and services make business leaders increasingly anxious about the state of their business and the economy over the next months.

The architecture, engineering and consulting (A/E/C) industry is particularly vulnerable to these impacts. Construction firms rely heavily on Chinese factories for materials and critical supplies. Since manufacturing activity has stalled for many weeks already, industry experts are fearful of construction materials becoming unaffordable in the near future. A/E/C firms are affected by travel and other work activity restrictions, as key staff might be delayed or contained while returning from abroad or from domestic trips. Furthermore, projects can be delayed due to lack of materials or delays in shipments from containment measures abroad. A/E/C firms working on international projects are likely to be affected by both travel restrictions and supply chain interruptions.

In fact, according to Engineering News-Record (ENR), solar projects in Wisconsin are already at risk of facing delays due to late shipments of critical project components. Moreover, according to Reuters, multi-billion dollar projects in Asia are delayed as several hundred senior staff and workers are not able to go to work, as well as due to shortages of construction materials.

Given that the outbreak is evolving rapidly, A/E/C executives should take action now to avoid or mitigate the potential impact on their business. Although the scale of the impact is still unclear, the situation provides the opportunity to start building resiliency in your firms now to minimize major long-term impacts from the outbreak, as well as help build capacity to proactively and more effectively address similar crises in the future.

The most important first step is to develop a plan and reassess the situation regularly as the case evolves, since new information and data become available often on a daily basis. Moreover, it is crucial to distinguish between hard facts and speculation and remain skeptical while assessing new sources of information to avoid overreacting to emerging news.

Given that the first priority is to contain the spread of COVID-19, which could involve rethinking work practices, firms should start assessing scenarios of key people having to be off-duty for some time, or for entire offices having to shut down for disinfection. Then, it is important to be clear on your policies in case of an emergency and promote

situational awareness, for instance by assigning a small senior team to review incoming information and be able to act fast.

Scenario tests should be performed in a “war room” style, since in the unlikely event that you will have to act, timing would be of the essence. Crisis simulations should evaluate the firm’s responses to potential unexpected emergencies, such as what the firm would do if all of its offices in a particular region have to be quarantined, or if the majority of its senior employees have to take time off work.

Your Staff

First, you should prioritize the health and safety of your employees. Doing so requires assessing the possibility of staff working remotely from home. Your employees may face transit challenges from containment measures, especially if they commute to work by public transportation.

Business trips should be reviewed, as well as in-person meetings and other business activities that require interaction with several people. In order to avoid disrupting business development efforts, team meetings as well as meetings and discussions with key clients can be conducted electronically. This highlights the importance of updating your travel policy and reviewing healthcare act obligations carefully.

Furthermore, all necessary sanitation items should be provided in all offices, and staff should be encouraged to follow the basic rules of limiting the spread as specified by the World Health Organization and the Centers for Disease Control and Prevention. Since employees might have access to conflicting information, a clear communications plan should be specified that makes sure employees are aware of which health and safety policies to follow and when.

Finally, you should develop a business continuity plan that includes alternatives for access to health care, transportation, and other provisions for your employees in case of emergencies. The plan should be easily accessible to your employees, so they can find all relevant information and be sure that they know what they can do in emergencies.

Your Clients

It is also important to seize the impact of the COVID-19 outbreak on your clients’ operations. You should prioritize the key clients that account for most of your firm’s revenues/ profit and make sure your relationship with them remains strong. Adding more senior staff time to your key clients may be of value.

As in any crisis, all sectors will be affected, but some will be impacted disproportionately. Clients can be assisted in identifying critical vulnerabilities from overdependencies on specific sectors, countries, or projects. While doing so, it is important to consider that the A/E/C industry has a “time lag” when facing such economic impacts. For example, ongoing projects should be expected to continue as planned, but some may be put on hold. Then, new projects may be revisited, postponed or cancelled as the situation evolves. Overall, firms should expect to face project delays, especially in projects during construction.

Yet, this also creates opportunities to bring your expertise to help your clients assess the short- and long-term impacts of the outbreak. All your clients may be facing similar challenges to you. However, some, especially smaller organizations, may not have access to the same technical resources that you do, for example when it comes to moving work online. Helping them can create some goodwill and also mitigate some of factors that can cause delays in the projects you work on.

Then, it is safe to assume this crisis will have some long-term impacts. When this will be all over, private and public agencies will evaluate their response and the damage taken. Since similar crises may happen in the future, firms may evaluate the way they do business and adapt it based on the lessons learned from this crisis. You could help your

clients in this. For example, some major industrials may re-evaluate their own supply chains by sourcing manufacturing facilities in more countries. Firms with a large international footprint might consider diversifying across other markets, or relocating key staff back home. Firms based in the US might evaluate which regions to choose to diversify operations if these are brought back from abroad. Different industries will identify their own key drivers to make their operations more resilient.

Your Supply Chain

Impacts on staff could be the biggest direct issue for A/E/C firm's supply chains. Yet, as the situation further develops, especially for construction firms, it is important to identify critical vulnerabilities across your supply chain. First, you should map all of your firm's providers, and review your insurance policies, and whether they cover or exclude a pandemic.

It is also important to review your agreements for 'force majeure' or 'material adverse change' clauses. This should be done both for client agreements as well as with your suppliers. You should evaluate whether your providers are likely to get out of current agreements or stop services due to the situation, and if needed, whether you can do the same.

Once critical vulnerabilities across your supply chain are identified, you can start considering actions to spread and minimize risk. This can be done by building redundancy and resiliency across your supply chain, for instance by evaluating several alternative providers in case one becomes unavailable, and avoiding procuring construction materials and other critical components from a handful of countries, especially those most likely to implement containment measures that can lead to unexpected shipment delays, or increase costs significantly.

Your Financials

You should develop base case and worst-case scenarios for the year ahead that objectively evaluate the likely impact of the outbreak on your financials. Since the outbreak will likely result in unpredictable net revenue and profit fluctuations, it is crucial to control costs and avoid overoptimistic or too pessimistic assumptions while setting budgets. This requires effective business tracking and forecasting processes through which you should regularly evaluate where your firm underperforms, and what actions are required to implement to improve performance.

First, working capital needs should be reviewed and optimized by focusing on reducing outstanding receivables and increasing accrued liabilities and accounts payable going forward. Then, you should start developing cash reserves and consider whether you could withstand one or more quarters of lower than expected profits. Although borrowing costs may decrease in the near term, you should be careful about adding more debt to your balance sheet. Capital expenditures should be examined, focusing on whether your planned expenditures make sense in an increasingly uncertain business environment.

Finally, you should focus on evaluating and improving your firm's productivity, making sure that your top employees and senior executives are working at full capacity. This is fundamental in ensuring that relationships with key clients are maintained and the firm is able to pursue new project work.

Conclusion

Overall, it is important to remember that the economic impacts of this situation are still uncertain and depend on many factors. The overall impact could subside in six months or it can continue for many more with ripple effects. Yet, although through our analysis of the past recession we have found that the A/E/C industry is resilient and has managed to navigate past crises effectively, the most successful firms were those that entered periods of crisis better prepared to address financial hardship, more adaptable to rapidly changing operating conditions, and ready to take action early on to further improve performance. The top performing firms were not more effective in predicting the timing of crises, but were more resilient and better prepared to withstand unexpected events when such events unfolded. You can find more information about the EFCG *Preparing for a Recession* study [here](#).

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