

THE CONTRACTORS' NIGHTMARE – BECAME A REALITY?

Impact of COVID-19 on the supply chain in the construction field.



Figure 1-3 constructors wearing a mask

Nowadays, globalization runs the world. Supply chains started being more complex and wider, than ever before. Crossing borders was never as easy as it is today. However, a pandemic of COVID-19 cut these connections in one day, and put enormous stress on the supply chains. The construction industry was one of the first victims of epidemic reality. Moreover, the workforce on construction sites was at a higher risk of contamination (Apurva Pamidimukkala, 2021). Closed borders, disruption in the flow of goods, lack of raw material and employees, high infection rates on the sites, and rising prices were just a nightmare for constructors, which came true in 2020. But how did exactly their dreams come true?

MATERIAL SHORTAGE

Any construction site is not able to work without material. This industry relies on on-time and high-quality deliveries, without which delays and additional expenses are created. In the first

weeks of the pandemic, China's lockdown impacted the flow of physical goods to any industry. Consequently, any mechanical-electrical supplies were at the biggest risk. Many factories and production had a limited force to produce in time for the demand needed. This is the reason why, such products as LED lighting, HVAC systems, fire safety devices, elevators and iron or timber had many delays or did not arrive. However, not only did production disruptions influence the distribution of raw materials but also halted flow between countries has impacted the shipping by ground, sea or air, which also delayed deadlines. That reason impacted enamous constructions sites, where 40% admitted that the delays influenced future schedules (Sierra, 2021).

The interview with one of the electricians working for a Norwegian construction company has presented the situation from a real perspective. "The communication with suppliers

was difficult. Many promises were made, which were not fulfilled” mentions the subcontractor. To keep the customer, the dealers were offering discounts or free shipments. Moreover, many of them were convincing that every delivery would be on time, meanwhile, the delays reached 3-4 months (Mikoda, 2021).

Due to all the reasons mentioned above, the solution discovered by contractors is working closely with secondary providers. This approach can avoid related pandemic interruptions, and is more efficient than focusing on the first supplier. In addition, growing relationship with the secondary dealers is a positive which lockdowns brought. Consequently, the bond can be maintained after the crisis and collaborations can be used while running out of material or any other accident appears (Butt, 2021).



Figure 2-3 welcome of two constructors

SKILLS SHORTAGE

Labour shortage is a well-known problem in the construction field, for many years. The lack of high-skilled workers, from builders to highly educated architects, is a suffer for this industry. Unfortunately, many aspects such as sex discrimination, retiring older generations, a big amount of stress and health problems are influencing even bigger disproportion (Mark Stride, 2021).

The pandemic of COVID-19 did worse the situation. According to Guardians claims, 500 000 jobs could be lost during the epidemic, which

influenced fell by 40,1% of construction output from April till June 2020 (Mark Stride, 2021). In many cases, the economical problems of the construction companies did not allow them to carry a big group of employees. Moreover, the delays of the materials, which halted work on the sites was a reason to fire some of the team members (Mikoda, 2021). However, numerous workers had been redeployed to carry duties such as cleaning the offices, to keep their positions for better times (Mark Stride, 2021).

Manpower in many countries is multicultural, which influenced the number of employees stuck in their places of origin. In addition, quarantines of the employees and high rates of infections reduced staff, prolonged the deadlines and created even more problems (Sierra, 2021). Besides the corona rules, such as 1,5m distance and obligatory wear of masks, the infections were rising, and the number of workers being on quarantine as well.

The fact that many of us can forget about is the impact of lockdowns on mental health. The job instability, need to work remotely, fear of contagion and many delays influenced the well-being of contractors. Permanent stress and anxiety do not help in physical work, moreover, make it less efficient (Apurva Pamidimukkala, 2021).

One of the solutions could be expanding working hours to facilitate the social distancing due to COVID-19. Nevertheless, in May 2020 the Housing Secretary of England allowed prolonging schedules till 9 PM, from Monday till Saturday. On the other hand, many doubts can raise, because due to the already existing shortage of labour, additional working hours can influence the efficiency and health of employees (Sierra, 2021).

Conducting a risk analysis is also the way to face the problem of skills shortage. While taking into account many issues and challenges by project managers, planning can become more efficient. An example of this idea could be giving more time for several tasks, and extending the final lead time (Apurva Pamidimukkala, 2021).

COVID-19, besides physical health dangers, has many consequences which impacted construction supply chains. Lack of materials and enormous delays in deliveries influenced the prolonging of final lead time for buildings. Moreover, shortage of labour is a serious issue for construction companies, which left without manpower cannot deliver what was promised. All that problems influenced the reduction of productivity by 35%, leaving the industry with spiralling costs. Consequently, due to COVID-19 costs have risen and will rise in the future. The estimation of inflation is £2500 per week (Mark Stride, 2021).



Figure 3-3 crew wearing masks and keeping distance

Many conclusions can be drawn based on the influences of the epidemic. However, the disruption of the supply chain caused much damage to the construction industry. By closing borders and lack of labour many raw materials and mechanical-electrical products was not delivered on time or did not come. Moreover, skills shortage due to quarantines, lockdowns and closed borders did not help the situation. All of those have influenced large delays in final lead time, and enormous costs connected with it. Nevertheless, predictions for 2022 does not give a bright light into the construction industry. Material that still will be affected by the pandemic in 2022 will be timber, steel, cement, paint and bricks (Woodfield, 2022).

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