Following the trail: a covariance plotting of the crippling effect of COVID-19 on small and medium sized -SMEs firms in the UK's Construction Industry

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Abstract

This article analyses the impact of the coronavirus pandemic among Construction Small-Medium Enterprises (CoSMEs) in the UK. A global and UK effect context-analysis is given and contrasted using a multivariate scrutiny of factors determining success or failure and the extent of covariance among contributory factors leading to closure as well as survival of the CoSMEs. Firstly, it reveals that within the UK, government interventional measures had a mixed effect. In most cases, the measures were deemed to be inadequate and too late in stopping the failure of most CoSMEs, though a substantial number survived due to government interventional measures such as the furlough schemes. Secondly, an inventory of the specific and multidimensional measures, attributed to mitigate total failure of CoSMEs is drawn including a review of the perceived benefits such as minimizing extent of total closure or declared volume of bankruptcies. Thirdly, it is observed that government decisive decisions contributed to the slowdown of the economy, and in particular construction activities. However, ranked among the interventional measures is the 'bouncebackability' driven measures which offered a soft landing for many CoSMEs. The study concludes that crisismitigating policy measures (CMPM), are necessary for the short and long-term recovery and performance of the UK economy. Understanding the composition of these measures and their rank order is critical to UK economic recovery.

Keywords

Covid-19, Construction SMEs, Furlough, Economic contraction, Unemployment.

Introduction

The outbreak of the corona virus (COVID-19) caused enormous jittery around the world apart from been infectious and increasing death rates, it has also affected both private and public businesses including government parastatal and charitable organisation around the world. The construction industry is not exempted from the effect of this outbreak while its consequences will last not just for months but years to come. Also, there has been a shift in demand and supply for construction products and services leading to an economic contraction due to construction operation been stopped for some period resulting from the lockdown implemented to curtail the spread of the virus. The reduction in demand and supply factors has caused a decrease in the production of some construction materials with short lifespan whilst others have seen an increase in price due to the lockdown and reduced import and export activities.

The lockdown was announced on 23 March 2020 by the UK government to alienate the spread of the virus. Apart from this preventing construction operation from continuing, many immigrants labour have just moved back to their respective countries of origin because of Britain Exiting the European Union (BREXIT), creating shortage of labour. Material shortages also became an additional problem, due to the restrictions on inter-state/regional movement of goods, consequentially effecting construction supply chain. The government strategy to restore the economy allows the UK construction workers back to work, including companies dealing with the supply of construction materials to support the economy. With the government continuing with this development, many contracting, and consultancy organisations involved in delivery construction services, have started to feel the impact with many uncertainties that might involve refinancing or completing a project and claims because of force majeure. Other factors such as staff redundancy, company closure and reduced wages has had detrimental effect on the industry. Hence, this research aims to explore the impact of the pandemic on construction companies' failure.

Literature Review Business Failure Defined

Failure refers to bankruptcy, business closure and sometimes leading to change in ownership and disappointment in meeting expectations (Balcaen and Ooghe, 2006). The dynamism of business failure has taken a new direction from what is generally known as the root causes of business failure. Amankwah-Amoah and Syllias (2020), define business failure as twine around changes in government policy, downturn, recessions, borrowing rate and globalisation. Over the year's things have taken a new dimension with an increase in market liberalism, sustainability, and climate change (Amankwah-Amoah et al., 2020). With different factors emerging and affecting the business world, the new pandemic has come to challenge those assumptions with more businesses closing down, followed with a second lockdown and new strains detected, hence forcing many countries to close their border. This is a challenging moment for Construction Small-Medium Enterprises (CoSMEs), haven been able to theorise previous causes of failures in construction business and improving on most of them. This new uprising has taken its toe on the business world and needs more research to deal with further drawbacks it will have on the business world. Despite the number of research on business failures and previous pandemic (the Spanish flu or Ebola), the business world has not gathered enough experience in dealing with pandemic of this nature. Hence the need for this research, to equip construction industry professionals in understanding airborne transmittable diseases and how it can be dealt with in future occurrence.

Kivrak and Arslan (2008), described business failure as lack of cash flow for companies to continue their business transaction. Whereas Amankwah-Amoah et al., (2020), defined business failure as a gradual or sudden death of a business while Fleisher and Wright (2010) concur that business failure is when a business is not sustainable, and it is forced to cease. However, Dias and Teixera (2017), defined business failure to mean when a business closes due to financial concerns. Hence, business failure is when a company is unable to meet its financial and operational obligation and cease trading due to inadequate cash flow.

Research suggest that Business failure is in two fold, the first which is due to environmental factors ingrained in deterministic view that covers issues such as deregulation, recession, government policy, bank rate, technological innovation and voluntaristic view which is about organisational characteristic or capability which involves leadership style, management experience and availability of manpower (Amankwah-Amoah et al., 2020). Business failure can also be attributed to internal factors such as company structure, strategy or practices and external factors, covering issues such as environmental challenges within or outside the business area (Gammeltoft et al., 2012).

COVID-19 and Construction Performance

Construction performance in the UK is expected to experience a sudden shock in the range of 25% reduced output due to the pandemic (Adian et al., 2020). The recession created as a result of this will continue till the end of the year 2021 and start to pick up slowly as major organisation will start to recover. The UK has seen its Gross domestic product GDP decreased by 5.8% in March since the COVID-19 outbreak, the worse after previous recession and since 1997 when office of national statistics (ONS) starts to record this performance. The 2.0% reduction in first quarter of 2020 represent the biggest since last quarter of 2008 (Roger, 2020).

UK construction sites have experienced been shut down due to the lockdown and the effect of social distancing rules on site productivities caused about 60% loss of productivities output. This varies depending on industry and country's strategy in place to combat the outbreak. Almost 85% of work in House building sector has disappeared with reduced 60% work in repair and maintenance sector whist commercial sector drop by 60% and commercial maintenance sector experience a minimal of 20% reduction because most programme in this sector/s were moved forward (Marshal, J 2021). Francis, N (2020) agrees, stating that for the fortunes of construction more generally, the near-term effect of covid-19 on the economy and employment are likely to be considerably greater than those faced during the financial crisis of 2008/09. Harris et al., (2021), reaffirmed that in addition to these issues around the economy and construction demand, productivity on site has fallen significantly due to social distancing and other safety factors, which means that construction activity will take longer and cost more. Even in our most optimistic scenario, construction output could bounce back by 25.5% in 2021 but, with growth starting from a low base, output will still be 6% lower than it was in 2019 (de Palma et al., 2021).

UK construction company is continuing to experience a reduction in working period with 5.8% less, beating accommodation and food services to second place (ONS, 2020). This is mainly due to government advising workers to work from home, wherever possible with only 25.6% of construction workers who have had such experience previously working from home. This government directives was affected by challenges of getting suitable locations and getting the required technology to aid such remote working (Zak Garner-Purkis, 2020). Construction output has fallen by 2.6% during the same period whilst the construction products association (CPA, 2020), predicted a further reduction of 25% before the end of the year due to the pandemic. The number of positions advertised had fallen by 86.2% and construction vacancies declined by 24.9% when compared with previous year (Garner-Purkis, Z 2020).

The construction industry is experiencing the biggest financial constraints due to the impact of COVID-19 on the industry, despite the support in place from the government, e. g supporting the self-employed and contributing about 80% towards staff wages. This is a global challenge, in US profit is expected to be squeezed whilst in the UK, the profit margin is anticipated to fall compared to the same period last quarter. Ellison, S (2020) concurs that it will provide a ray of light amid the gloomier outlook for the sector, perhaps pointing to a way out of the downward spiral. The pandemic has resulted in many discussions and questions such as: if it constitutes force majeure event. It can therefore, safe guide the contractor from fulfilling its contractual obligation based on the provision of the contract terms. This will create a lot of disputes in the implementation or interpretation of this provision, deciding if COVID-19 outbreak could be claimed under force majeure event (Hansen, S 2020), such event could be external, unexpected, and unavoidable (Azfar, 2012; Ezeldin and Helw, 2018) or unforeseeable, unavoidable, uncontrollable, impracticable and beyond a party's responsibility (Hansen, S 2020) with a consequence of termination or suspension of the contract (Hagedoorn & Hesen, 2007; Ezeldin & Helw, 2018) while each party covers their risk and can entitle contractors in some situation to claim for extension of time (Hagedoorn & Hesen, 2007) and prevent most contractors from being held responsible from paying liquidated and ascertain damages. Invariably this could lead many construction companies into liquidation, if not addressed promptly.

The outbreak of the pandemic and its impact on construction companies in terms of delay on various projects, could prevent contractors winning future projects or facing penalties for non-performance. James, M (2020), stated that the virus will affect supply chains due to the lockdown, causing delays with delivering supplies by over two weeks. This area of the industry relied on small and medium enterprises (SME) to function effectively, with many self-employed workers affected despite government support/provision as some of these workers will be self-isolating causing many projects to be suspended for unknown period/s. All this will affect construction company performances which can cause those affected to fail in discharging their responsibility to their clients whilst unable to sustain labour capacity.

Construction Company Failure

Construction companies play major contributory roles for economic development and the efficiency of construction industry depends on the contribution of the construction firms (Mahamid, 2018). Apart from the industries fragmentation, the construction industry continuing to be confronted with other internal and external factors that contribute to its performance (Mahamid, 2018) the recent pandemic is another influencing factor that have affected the industry performance (Raskino, 2020).

The construction company has been an employer of labour, with small scale company employing less than 250 operatives to large organisation engaging over 250 employees have experienced the second largest failure, compared with other companies, just below the restaurant in the hospitality industry (Clough and Sears, 1994). The effect of failure goes beyond any direct causative to the owners, creditors, or the employees (Mason and Harris, 1979), but with a great influence on the economic and social performance of the economy (Mahamid, 2018). Construction company failure can be described as liquidation or administration (Dun and Bradstreet, 1986), when the company cannot perform its obligation (Frederikslust, 1978) or realised rate of return on investment (Altman, 1971), incompetent or in debt (Storey, 1994) and discontinuation for other reasons (Watson and Everett, 1993).

Many studies had been carried out for investigating the causes of construction company failure. Arditi el al (2000) conclude that failure in USA construction company is because of budgetary and macroeconomic issues whilst Schaufelberger, (2003) study on subcontractor's company revealed insufficient capital/excessive debt, lack of managerial maturity, lack of early warning measures, increase in project scope, poor billing procedures, failure to evaluate project profitability, unfamiliarity with new geographical areas, and poor use of accounting systems. Also, Kivrak and Arslan (2008) agrees that inexperience and economics conditions were the critical factors that causes company failure. The research conducted by Arslan et al. (2006) on main contractor reveals that such failure is intertwined on cash flow and relationship problem, also some construction companies experience failure due to low percentage profit allowance and padded bid proposal. Mahamid (2018) highlight the main factors of contracting failure as: fluctuation in cost of material, payment delay, inexperience in contract management, low profit margin and location or movement limitation. Construction company must bid reasonably to any project to avoid failure and Quantity Surveyor who are responsible with analysing all tender must act professionally when dealing with the issues of front loading, speculative pricing, and corrections of error in other to prevent contractor failure because of quest to win a bid to remain in operation.

Methodology

Exploratory research is utilised to explore the research question, allowing the gathering of multiple sources of information, whilst allowing supplementary research around the research question to give a more holistic view and understanding of the research topic and does not aim to reach conclusive solution to the research question (Stebbins, 2001). Furthermore, quantitative research in the form of analysis of secondary data and collating key industry views on the subject, backed up by data to support these views have jointly allowed for the analysis and discussions. The data involve latest development effect on construction organisation, these data include relevant media, company and government reports which was analysed to assess the effect of Covid-19 on construction company failure.

Analysis and Discussion

The industry have experienced an increased in the number of construction company going into administration, about 3,100 firm were in administration 12 months before the Covid-19, a higher rate of liquidation than other industry (Maindonald, E 2020), this became worst in April 2020, when the lockdown take its effect with many construction sites closing down due to the interruption of labour and materials supply indicating similar level of activities as witness during previous recession.

Table 1 shows 273 total number of CoSMEs that are involved in different construction activities at different level of administration because of the ongoing pandemic as at the month of May 2020, it covers every area of constructions activity except the fact that it affects one services than the other. 30 companies involved in building project are in liquidation for the month of May, only followed by companies specialising in mechanical, electrical, and public utility projects with 18 numbers in administration. Others in first five position includes: Finishes: floor, wall, ceiling, and decoration with 17numbers while specialist construction activities with civil engineering projects have 14 and commercial projects with 13 companies. Some other organisations have appointed administrators to take over their activities. With the following construction activities also occupying the first five position: Building project 39,

specialist contractor 20, MEP 19, Finishes 18 and commercial project 10 whilst others are meeting up with administrators to discuss the possibility of taking over the companies activities, those construction activities that have initiated such meetings with administrators ranges from MEP 11, Building project 10, finishes 9 and Specialist contractor/commercial project/joinery with 4 numbers each. Majority of this organisation or the administrators will have to deal with cost overrun and delays with completing the rest of the project while some of the employee can still be retain on temporary basis, working remotely or on site, being furloughed or laid off. There is going to be an increase shortage of skill in the construction section, creating difficulties in recruitment process which will inevitably lead to vendor complain about delaying in delivery on their property.

Table 1: List's insolvencies and administrations of construction-related firms, filed in the UK and Ireland during May 2020.

Number of	May 2020. Status	Types of Work or
Companies	Status	Project
14	In Liquidation/administration/receivership	Specialised construction
14	in Elquidation/administration/receiversinp	activity
30	In Liquidation/administration/receivership	Building Project
13	In Liquidation/administration/receivership	Commercial Project
18	In Liquidation/administration/receivership	MEP
8		Joinery
17	In Liquidation/administration/receivership	Finishes
	In Liquidation/administration/receivership	
1	In Liquidation/administration/receivership	Glazing
8	In Liquidation/administration/receivership	Joinery
1	In Liquidation/administration/receivership	Scaffolding
1	In Liquidation/administration/receivership	Demolition
1	In Liquidation/administration/receivership	Other installation
10	Appointment of	Commercial Project
1.0	Liquidation/administration/receivership	E 1
18	Appointment of	Finishes
1.0	Liquidation/administration/receivership) (ED
19	Appointment of	MEP
	Liquidation/administration/receivership	
5	Appointment of	Joinery
	Liquidation/administration/receivership	~
20	Appointment of	Specialised construction
	Liquidation/administration/receivership	activity
4	Appointment of	Other installation
	Liquidation/administration/receivership	G 00 1 1
1	Appointment of	Scaffolding
	Liquidation/administration/receivership	
1	Appointment of	Demolition
20	Liquidation/administration/receivership	D '11' B ' ·
39	Appointment of	Building Project
	Liquidation/administration/receivership	G . 11. 1
4	Meeting Liquidation/administration/receivership	Specialised construction
1.0		activity
10	Meeting Liquidation/administration/receivership	Building Project
4	Meeting Liquidation/administration/receivership	Commercial Project
11	Meeting Liquidation/administration/receivership	MEP
9	Meeting Liquidation/administration/receivership	Finishes
1	Meeting Liquidation/administration/receivership	Other Installation
4	Meeting Liquidation/administration/receivership	Joinery
1	Meeting Liquidation/administration/receivership	Demolition

Source: Adopted from Credit safe Data (2020).

Apart from recognised causes of company failures, the predicament caused by the pandemic is a major contributing factor, even though the government have provided some palliative measure. This has not in anyway stop construction failure/s, rather it has only reduced the effect it might have on company employees. Construction performance have reduced sharply during this stage and is continuing to decline despite the efforts made by government in asking construction companies to continue with site operation while maintaining social distancing on site. This has not prevented failure, as more CoSMEs finds it difficult to continue in business due to inability to service their debt and sustain cash flow because of the lockdown. Also, this has caused another tendering cycle as projects affected by possible insolvency will have to undergo another tendering process, which will add to the contract sum, therefore increase the client's budget, hence affecting the continuity of such project. All this would not stop at the client, employees or contracting businesses table but goes beyond that, to affect the economy since the construction industry is a major contributor to any nation's GDP.

The construction industry supports employment and contributes immensely to the UK economy. The construction industry is an economic tool used by government to boost the GDP, which has been adversely affected by the pandemic as shown in the table 1 above, with many of the companies closing down from operating. This has consequentially caused substantial numbers of redundancy whilst most other CoSMEs went into administration. Despite this, the overall effect of the pandemic can still not be ascertained, the immediate effect has witnessed by many of CoSMEs going into administration, causing many staff been made redundant and claims springing up due to non-performance from contractors resulting from the pandemic and the locked down effect. Many of this organisation will be involve in one dispute or the other due to disruption in the progress of work and insurance provision for this type of case has not been well established in the different forms of contract available. The contractor and client will have to work together and explore the provision under force majeure events to maintain their relationship and avoid abandonment of project or company collapse.

Many of the affected construction firms must understand how the government scheme work and the cost to their organisation since they will be responsible for the cost of national insurance (NI) and taxes whilst redundancy takes about 45 days. If an employer is considering this route, the NI and taxes is expected to be paid at full rate during the statutory pay period, hence construction organisation will have to seek advice on the legal intricacies and try to explore the best opportunity available to them rather than going into administration as it will not augur well for all the parties to the contract, the construction industry with a resultant effect on the economy at the receiving end.

Government Responses during Covid-19

Government wages support scheme to self-employed construction workers is in place to support the construction company at this crucial time which need to be extended to self-employed directors of small enterprises. The furlough scheme is also in place to help the industry cushion the effect of Covid-19 on workers. Majority of contracting organisations have started implementing the social distancing protocols on site, making the use of masks mandatory, and reducing the numbers of workers working on a location (Maindonald, 2020).

The government subsidy 'furlough scheme' was brought in to lessen redundancy rate and construction business failures is planned to end by October 2021. It is hoped that this will reduce the cashflow challenges that construction organisation would be experiencing. The scheme will be responsible for 7.5 million employees' wages working across 935,000 organisations, with 1 in 4 of these employees working in private sector. Construction organisation can defer their VAT payment (Harwood, B 2020). Some construction organisation continued to work during the lockdown while maintaining social distancing and on observing that the government have eased the restriction in May 2021 to boost the economy, as the construction organisation are trying to be back on track. Though, there would be an increase in disputes due to time and cost overruns (Harwood, B 2020), which might still lead to some company failure.

Many organisations have adopted different innovative idea to combat the effect on construction site with the use of technology for virtual reality to showcase design, organised site meeting, project exhibitions and planning application, including the use of artificial intelligence for site monitoring and valuation of work to date. Despite all this in place, many construction organisations have experienced reduced cash flow with many already crashing out of the business radar.

Conclusion

Strategy must be in place to future proof the Construction Small-Medium Enterprises (CoSMEs) involve in construction by creating the culture and control mechanism among the parties involve, building on the existing policy and provision of adequate health and safety equipment and policy. it is necessary to see more investment in innovative technology that will support management of the construction process including cash flow support that will help cushion the effect of any delays or overrun due to any unforeseen situation cause by covid-19. This should be adapted to any economic dynamism faced by CoSMEs. Any ambiguity in dealing with cases arising from pandemic should be made clear in the various form of contract in use to avoid any dispute or abandonment of project.

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Proceedings of the International Conference on Industrial Engineering and Operations Management Rome, Italy, August 2-5, 2021

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Proceedings of the International Conference on Industrial Engineering and Operations Management Rome, Italy, August 2-5, 2021

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