

STRATEGIES IN MEDIATING THE IMPACT OF COVID-19 PANDEMIC BY SMALL-SCALE CONTRACTORS IN SARAWAK, MALAYSIA

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Abstract: *The construction business is large and play a significant role in the Sarawak's economy, but in recent years it has witnessed an increasing number of financial failures in construction companies. COVID-19 has worsened this situation where many construction companies need to halt their operation due to a lack of resources and expenses overrun. Workers on-site are reduced, and off-site work being encouraged in order to prevent and limit the spread of the infectious virus by the contractors, and small -scale contractors are not being exempted in this scenario. Hence, this paper identifies the strategies for the small-scale contractors in mediating the impacts of COVID-19 particularly in Sarawak region. Quantitative research was conducted in getting the consensus among small-scale contractors in Sarawak and the feedback are analysed using statistical analysis. It is found that small-scale contractors are aware on the challenges that they are facing during COVID-19 pandemic. As evasive action, strategies in mediating the challenges are also being commonly accepted by the small-scale contractors alongside with the insight in sustaining their construction business in Sarawak.*

Keywords: *construction industry, small scale contractors, COVID-19 pandemic.*

Introduction

The COVID-19 epidemic has had negative impacts on the national economies of countries located all over the world. According to Yu, et al. (2021), corona virus disease has been related to severe acute respiratory syndrome (SARS) in Wuhan, China, was the first to observe its fast spread in 2019. For this reason, World Health Organization (WHO) has proclaimed the sickness to be a pandemic (WHO, 2020). As a result of the COVID-19 epidemic's global expansion, there have been catastrophic consequences. The economy is suffering as a result of the COVID-19 outbreak. A vast number of countries were suffering from recession and economic deterioration.

Many construction works were halted across the Movement Control Order (MCO), apart from any services that were classified as critical or essential. Even after the MCO was removed, contractors continued to experience disruption, which resulted of being required to implement tight standard operating procedures ("SOPs") on health and safety measures for construction sites (Liew, 2021). Employees were required to wear face coverings as a safety precaution, and requirements for social distance, COVID-19 safety training and assistance for working from home were also implemented. In contrast to other industries, construction necessitates the constant presence of all project participants on-site at all times (Yu,et al, 2021). The spread of the virus has also led to travel restrictions in some countries, which has hampered construction since it requires on-site work and the availability of every project member to work, check and monitor all work activities.

Furthermore, the MCO has also increase contractor's expenditures especially in providing extra protection against the virus (Farah et al., 2020). This is important for the contractors to comply with new regulations. Zamani et al. (2021) aware on this issue and identify that MCO has also led to cost overrun. While for the small-scale contractors, they were suffering from issues such as loan repayment problems due to the MCO, especially for loan payments which exposing them to become insolvent (Nur, Salina and Lai, 2023). These financial issues have directly disrupted the small-scale contractor's business and lead to other related issues such as delay, non-compliance, and others.

Therefore, the aim for this paper is to point out strategies that manage to mediate the negative impact imposed by COVID-19 pandemic by small-scale contractors particularly in Sarawak, Malaysia. It is indispensable to identify the strategies in order to provide options and measures for small-scale contractors to survive during the pandemic besides to ensure the sustainability of the small-scale contractors' business s in Malaysia construction industry.

Literature Review

Construction industry plays a vital role by acting as a catalyst to Sarawak's economy. Department of Statistics Malaysia (DOSM) noted that construction sector contributes by 3.4% to the whole Sarawak's economy. Abang Johari says "Construction sector performance in Sarawak grew 10.2% in 2021 compared to a negative growth of 8.8% recorded in the previous year. This increase is driven by increased value work for all four subsectors. The civil engineering subsector dominates construction sector with contributions by 44.7%, followed by buildings residential (21.2%) and non-building residence (17.8%) and lastly special crafts (16.3%)," it said in its 2021 socio-economic report for Sarawak (TUAH, 2022).

According to Lee & Voon (2022), Sarawak's economy is broad, consisting of the service industry, manufacturing sector, mining and quarrying sector, agricultural sector, and construction sector. In 2020, Sarawak's economic output will contribute 9.5% of Malaysia's GDP, making it the country's third-largest contributor. In 2019, Sarawak's GDP expanded by 2.8%, but because of the COVID-19 pandemic in 2020, it declined by 7.1%.

Challenges Faced by Small-Scale Contractors Due to COVID-19

Small-scale contractors are important in developing countries such as Malaysia since these contractors are providing services of labour-based works to the construction industry. However, it is reported that lack of timely supply, a decline in productivity and an increase in material costs were among the listed negative consequences due to COVID-19 which directly affecting small-scale contractors. With the COVID-19 outbreak in mind, the risk of the construction industry having cash flow issues also increases (Kamarazaly, A. et al., 2020). The payment of claims made was delayed due to disrupted government operations during the MCO (Zamani et al., 2021). In mediating these challenges, government programmes and support programmes were being used by businesses to ease burdens they were experiencing. Furthermore, social distance and quarantine regulations may result in a reduced workforce within the supply chain, leading to delays in material delivery and a scarcity of supplies at the construction site. According to Dayak Daily (2021), based on data from the DOSM from January 2021 to August 2021, which is projected until December 2021, the cost index for construction materials grew by 19% nationwide because of COVID-19 and growing global market prices.

Department of Statistics Malaysia's (2020) reported the number of working hours in Malaysia has decreased since the COVID-19 pandemic struck the country due to the implementation of the MCO). Farooq et al. (2022), determined that contractors are having financial issues because of the government's budget cuts, which has disrupted the supply chain and made work-force management difficult. Even when businesses remain open, employees are experiencing financial cuts from lost employment or fewer hours worked (Engidaw, 2022). According to Biswas et al. (2021), because of huge layoffs and economic recession due to COVID-19 pandemic, there are shortage of workers in the construction industry. The coronavirus pandemic, along with constantly changing regulations, orders, and self-imposed limits on construction projects, has caused changes and problems that have never been seen before (Adhikari & Poudyal, 2020). There was also much uncertainty on when construction operations will resume where restrictions were in place (Alsharef et al., 2021). Other than that, COVID-19 could lead to significant issues in the workplace, which could make it impossible for a subcontractor to do their job or cause schedule delays and rescheduled work (Herrod, 2020). Consequently, when cost and time performance are already compromised by COVID-19, construction quality performance may be affected (Kamarazaly, A. et al., 2020).

Strategies in Mediating the Challenges Faced by Small-Scale Contractors Due to COVID-19

According to Koopman & Cumberlege (2021), it is essential for the daily operations of a construction business to have sufficient cash flow. Construction organizations need to assess the possibility of late or halted deliveries of materials from suppliers and ensure labour, equipment, and material availability. A project can be stopped if materials cannot be delivered or if there is not enough of even one important element. Hence, strategy is to diversify supply chains and prevent relying on a single source of supplies or to decentralise by developing a network of supply centres in easily accessible areas (Husien et al., 2021).

Proper financial management is a key to the survival of construction firms. As periods of lockdown resulted in zero income, companies had less capital to cover overheads, demonstrating the importance of this response strategy. Besides, the contractors have a responsibility to make sure that their workers are not exposed to risks which can affect their safety and health. To reduce the shortage of skilled manpower, employees should be encouraged and advised to develop their required attitude and competences for their trades (Akomah et al., 2020). Hence, effectively designed training systems should improve both the performance and the engagement of workers, and their health and safety (Benz, 2016).

To ensure that a construction site is a safe place for employees to work, main contractors have a greater responsibility to properly organise and arrange the work of subcontractors (Sierra, 2021). The quality process must be monitored by management to guarantee that requirements are met. Some construction companies use this method to guarantee their clients are happy with the completed project (G. Furst, 2022).

Methodology

The objectives of this paper are to identify strategies that can mediate the impact of COVID-19 pandemic that affected the construction business of small-scale contractors. Quantitative method is adopted as the part model of this research methodology framework. The data acquisition is done by collecting responses from small-scale contractors in Sarawak, Malaysia which registered with Construction Industry Development Board (CIDB) grade of G1, G2, G3 and G4. According to data from CIDB, it is identified that population for this study is 8,697 small-scale contractors. In determining the sample size, Krejcie and Morgan table has been referred and it is ascertained that 367 respondents are required to represent the population. 5-point Likert scale is used to collect responses and being analysed by using Average Index (A.I) in getting the consensus which computed using equation (1). A.I is interpreted according to interpretation as per Table 1.

$$\text{Average Index (AI)} = \frac{\Sigma (1X_1 + 2X_2 + 3X_3 + 4X_4 + 5X_5)}{\Sigma (X_1 + X_2 + X_3 + X_4 + X_5)} \quad (1)$$

Where,

X₁ = Number of respondents for Strongly Disagree

X₂ = Number of respondents for Disagree

X₃ = Number of respondents for Neutral

X₄ = Number of respondents for Agree

X₅ = Number of respondents for Strongly Agree

Table 1: Avearge Index (A.I) Analysis Interpretation

Average Index (A.I)	Evaluation Level
1.00 < Average Index < 1.50	Very Poor
1.50 < Average Index < 2.50	Poor
2.50 < Average Index < 3.50	Moderate
3.50 < Average Index < 4.50	High
4.50 < Average Index < 5.00	Very High

Source: Ghani (2006)

Results and Discussion

The survey conducted for this research gathered a total of 78 respondents through questionnaire distribution among the small-scale contractors in Sarawak locality.

Table 2: Demographic Analysis of Respondents

Criteria	Demographic	Frequency	Percent (%)
Age	20 - below	1	1.3
	21 -30 years old	28	35.9
	31 - 40 years old	17	21.8
	41 - 50 years old	11	14.1
	51 or above	21	26.9
Working Experience	<6 years	27	34.6
	6 - 10 years	21	26.9
	11 - 15 years	12	15.4
	>20 years	18	23.1
Length of Service	<1 year	24	30.8
	1 - 5 years	23	29.5
	6 - 10 years	11	14.1
	>10 years	20	25.6
Education Background	Diploma	11	14.1
	Bachelor Degree	35	44.9
	Master	21	26.9
	PhD	11	14.1

The responses were primarily between the ages of 21 and 30 (35.9%), indicating that the respondents were mostly from the practitioner's younger generation within the small-scale contractor in Sarawak construction industry. Respondents that have experienced less than five years in the industry are leading by 34.6% which is equivalent to 27 numbers of respondents. The results demonstrate that most of the respondents are new generations in the construction industry who had influence over the companies participating in the study. Respondents with less than one years of industry experience are the highest in the ranking by 30.8% which is equivalent to 24 numbers. data shows that most of the respondents are new to the small-scale contractor company. As for the education background of the respondents, most respondents possess bachelor's degree accounting for 35 (44.9%). Respondents with Master on the other hand, accounted for only 21 respondents (26.9%) and 11 respondents (14.1%) represent respondents with Diploma and Doctor of Philosophy (PhD) qualifications of total respondents, respectively. As a result of the findings, respondents in the Sarawak construction industry have varying levels of education.

Table 3: Average Index (A.I) Analysis on Evaluation Level for Strategies in Mediating the Impact of COVID-19 by respondents.

Strategies in Mediating the Impact of COVID-19 Pandemic	Average Index (A.I)	Evaluation Level	Rank
Accurate cash flow forecasting	4.38	High	1
Improving communication between contractor & subcontractor	4.24	High	2
Recruiting new manpower	4.23	High	3
Providing specific training for workers in handling the pandemic	4.23	High	3
Improving inventory management	4.17	High	4
Enhancing safety & health management plan at site	4.14	High	5
Reforming quality management plan	4.13	High	6
Boosting contractor's skill & expertise	4.10	High	7
Rescheduling the work activities	4.09	High	8
Enhance financial management	4.06	High	9
Improving the supply chain management of material	3.97	High	10

In Table 3, the outcome is summarized and revealed that the respondents agreed on all eleven (11) strategies that can resolve problems caused by the COVID-19 pandemic with a 'High' level of agreement. This conclude that the construction players of the G1-G4 contractor have high-level of knowledge on the strategies to mediate the impact of COVID-19 pandemic that affected the small-scale contractors. The A.I indicates the highest rated strategy is 'accurate cash flow forecasting' (A.I = 4.38). This is proven since small-scale contractors need accurate cash flow forecast because it helps them in strategizing for borrowing or managing surplus funds as their cash balances continuously change over the period of the project. Positive cash flow makes sure that there is enough money to pay for labour, materials and equipment needed for construction. Furthermore, 'improving communication between contractor and subcontractor' is ranked at second place of the Average Index (A.I = 4.24). This indicates the small-scale contractors need to spend more time engaging in communication in both directions with their subcontractors. This is very important to ensure that construction site is a safe place for workers to work and the contractors have greater responsibility to properly organise and arrange the work of subcontractors (Sierra, 2021). Moreover, the respondents identify that recruiting new manpower and providing the specific training for workers in handling the pandemic are respectively being ranked at third place of Average Index (A.I = 4.23). During the COVID-19 pandemic, the small-scale contractors were facing problems in ensuring sufficient manpower for the construction besides issues of traveling limitation between countries which mainly providing labour for Malaysia construction such as Indonesia and Bangladesh have put the construction management at risk in continuing its progress. In addition, the COVID-19 pandemic has changed the safety requirements at construction sites where more stringent rules and regulations being imposed, and these requires the small-scale contractors to provide specific training in conforming the rules and regulations in handling and controlling the COVID-19 at construction sites.

Conclusion

The research has discovered that small-scale contractors' strategies to mediate the impact caused by the COVID-19 pandemic that affected their construction business. This indicates that they are the small-scale contractors' reactive measures to ensure the continuity of construction progress and these measures should be improved continuously by complying with current rules and regulation by the government so that small-scale contractors can manage to sustain their business operation and successfully deliver the construction product to the client.

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