

Response Strategies Used during COVID-19: Restaurants in Dhaka City

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Abstract

COVID-19 jeopardized the survival of the worldwide restaurant business. The purpose of this article is to evaluate the effectiveness of restaurant response strategies to the COVID-19 crisis during more than two months of lockdown in 2020 in Bangladesh. A two-stage approach was used to collect the data. The restaurants were chosen from eight Dhaka City clusters that were selected judgmentally. A standardized questionnaire was utilized to collect data from 221 restaurant owners selected through simple random sampling. The findings show that during COVID-19, all three strategies online reliance, cost reduction, and resilience- influenced restaurant profitability. Restaurants may replicate some of these successful response strategies developed during COVID-19 in the future. To increase profitability, restaurants should develop good relationships with online food delivery companies.

Keywords: Online Ordering, Resilience, Cost Reduction, Temporary Laying Off Employee, Delivery Service, Restaurants, Response Strategy.

1. Introduction and Past Research

Bangladesh, like the rest of the world, was struck by the COVID-19 epidemic. In March 2020, the Government of Bangladesh implemented a complete lockdown and a risk zone-based COVID-19 containment strategy to limit the spread of COVID-19 (e.g., Mohiuddin, A. K., 2021). Except in emergencies, law enforcement officers rigorously restricted public movement. It effectively reduced the infection rate. However, after more than two months, the lockdown was partially lifted in June 2020, and businesses were allowed to continue under stringent circumstances.

COVID-19 had a significant impact on the global hospitality sector, particularly in the restaurant industry (Kim et. al, 2021). Even though the restaurants had to remain closed owing to the COVID-19 shutdown, the owners were still obliged to bear the high overhead such as rent, labor, and so on. These constraints led to permanent closures and job losses in this

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sector (Neise et al, 2021). However, the restaurants have demonstrated their resilience by digitalizing their daily transactions to sustain the business (Yost et al, 2021).

In such circumstances, a question needs to be answered. What strategies have the restaurants used to respond to the COVID-19 crisis?

Several studies on the implications of COVID-19 on the restaurant business have already been undertaken (e.g., Sardar et.al, 2022; Brizek et. al, 2021; Messabia et al, 2022). Researchers have also investigated the recovery strategies adopted by restaurants to manage the COVID-19 crisis. However, most of these investigations have been exploratory in character (e.g., Yost et. al, 2021; Kim et. al, 2021). Some researchers have concentrated on more specific strategies. Several researchers attempted to comprehend the impact of restaurants' employment of digital technology to sustain their business during COVID-19 (e.g., Wali & Idenedo, 2021; Hung Kee et al, 2021; Lau & ng, 2019; Esposito et al, 2022). A few research have also probed into the restaurant's resiliency during COVID-19 (Neise et al, 2021).

We may conclude that some research focused on the digitization method of responding to the COVID-19 problem, whereas others focused on restaurant owners' resilience to deal with the crisis. However, no study has combined these strategies. Against this backdrop, this paper aims to assess the effectiveness of three COVID-19 crisis response alternatives utilized by restaurants- online dependency, cost reduction, and resilience to regain profitability.

As the Covid-19 lockdown eased, the restaurants could only provide limited outdoor seating or take-out options. To make their business sustainable, many restaurant owners had to rely on online and other digital platforms to compensate for the decline in sales. Furthermore, most of them were compelled to offer extra services such as online payment systems and home delivery (Brizek et al, 2021). Food delivery apps ensured that clients' favorite meals, chosen from digital menus, are delivered fresh, on time, and to their desired location (Wali and Idenedo, 2021). Far more "options" for contactless delivery and online payments are now available (Chowdhury & Haider, 2020). All these techniques have contributed to an improvement in service experience and increased sales (Wali and Idenedo, 2021).

To deal with the COVID-19 issue, restaurants had to conserve cash by reducing needless expenses, which increased the business's resilience (Yost et al, 2021). Closing unprofitable stores reduced the risk of business going bankrupt (Neise et al, 2021). Employees were also considerably downsized

to reduce the restaurants' expenses (Kim et al, 2021). However, most of these employees were not fired outright; instead, many were granted unpaid leave, while others were compensated (Chowdhury & Haider, 2020). The reduced operating costs helped the restaurants avoid financial loss (Samonte Jr, et al, 2022).

Property ownership and a sound financial foundation are essential variables in establishing a company's resiliency (Neise et al, 2021). Restaurant revenue was severely affected when large gatherings were suspended and dine-in services were discontinued. Meanwhile, rent, utilities, taxes, wages, and other expenses piled up. Still, the restaurants have been able to survive on personal investment, accumulated profit and liabilities shared among the partners. Thus, restaurants have proven to be resilient (Chowdhury & Haider, 2020).

In line with the above discussion, the paper offers the following hypothesis:

H1: Online dependency influences profitability of restaurants during COVID-19

H2: Cost reduction influences profitability of restaurants during COVID-19

H3: Resilience influences profitability of the restaurants during COVID-19

To examine the above hypothesis, a survey was undertaken. A two-stage sampling strategy was used. First, 390 restaurants from eight clusters of Dhaka City were selected through judgmental sampling based on their popularity. Thereafter, a questionnaire was used to collect data from 221 restaurant owners who were chosen through lottery using simple random sampling.

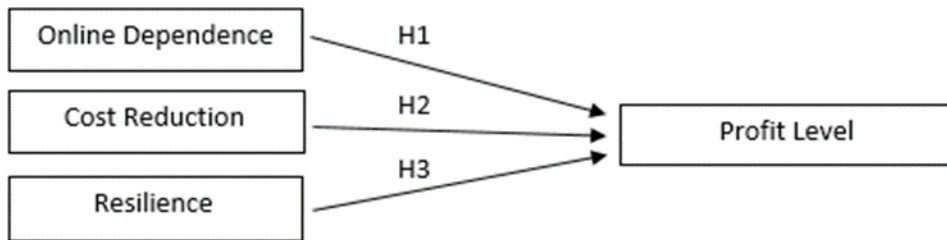
The collected data was subjected to regression analysis. The findings indicated that restaurants might recover their profitability by implementing digital platforms, reducing costs, and displaying the owners' resilience through actions such as absorbing losses, using personal savings, and so on.

The rest of the paper is organized as follows: an examination of the literature on the response strategies used by restaurants in Dhaka City to develop the hypothesis. The development of the conceptual framework is followed by methodology, which discusses the questionnaire design and sampling methods used. The empirical findings were then discussed, followed by the limitations of the study. The study ends with managerial implications and a conclusion.

2. Conceptual Framework

Fig 1 shows a graphical representation of this study. It comprises the three predictors- Online Dependence, Cost Reduction, and Resilience. The dependent variable is Profit Level of the restaurants.

Figure 1: Adoption strategies used by restaurants during Covid-19



3. Research Design

The objective of this mixed method study was to determine the effectiveness of restaurant adaptability techniques during COVID-19 lockdowns. Initially, a focus group discussion with some restaurant owners was held to get insight into the types of techniques they used to sustain their businesses. Several journals were examined to determine the types of studies that have already been undertaken in this field. They were employed in the creation of a conceptual model. Finally, a questionnaire was created to collect the data, which was then analyzed.

3.1 Exploratory Research

3.1.1 Focus Group Discussion

Focus group discussions were conducted with two sets of eight restaurant owners to learn about the adaptation strategies they used during COVID-19 lockdown to secure the long-term sustainability of their businesses. Each session lasted for about an hour, and the data was examined. They revealed that these restaurants began conducting their operations through social media platforms. They provided home delivery and used payment platforms such as Bkash, Nogod, and others. To cut costs, some restaurants temporarily laid off their personnel.

3.1.2 Measurement

The conceptual model consists of four broad constructs. The literature used to develop the constructs is mentioned in Table 1 below.

Table 1: Source of measurement items

Constructs	Items	Relevant Literature
Online Dependence	Online Food Ordering	(Neise et al., 2021)
	Online Payments	(Wali, 2021)
	Take-Out Service	(Brizek et al., 2021)
Cost Reductions	Stop Operation of Unprofitable Store	(Brizek et al., 2021)
	Reducing Capital Expenditure	(Kim et al., 2021)
	Temporary Laying off Employees	(Yost et al., 2021)
Resilience	Use Accumulated Profit	(Neise et al., 2021)
	Use Personal Savings	(S. Vig, R. N. Agarwal, 2021)
	Share Losses	(Samonte et al., 2022)

3.2 Descriptive Research

3.2.1 Questionnaire Design

The questionnaire's objective was to quantify the effectiveness of the restaurants' adaptation tactics during Covid-19. The first section of the questionnaire focused on the respondents' demographic information. The following portion concentrated on the items designed to assess restaurants' adaptive techniques. A 4-point Likert scale was used to evaluate the items, with the two extremes being 'strongly agree' and 'strongly disagree'.

3.3 Sampling Method

The population for this study comprised the owners or managers of all restaurants in Dhaka City to evaluate the techniques used by restaurants during the COVID 19 shutdown. In this investigation, a two-stage sampling strategy was used.

First, eight thanas were chosen on a judgmental basis from among the 43 thanas in Dhaka City based on the most popular restaurant areas. The most popular 390 restaurants were identified from these clusters (thanas) based on online reviews. 95 of these were fast food restaurants, 50 were fine dining restaurants, 160 were casual restaurants, 40 were coffee shops, and 45 were buffet restaurants.

Second, 240 restaurants were chosen through a lottery using simple random sampling. The contact information for these restaurants' owners or managers was collected online. A pre-arranged meeting was held to collect data from restaurant owners or managers via a structured questionnaire. With a 92% response rate, data could, finally, be collected from 221 restaurants. Data was collected between December 2021 and January 2022.

4. Data Analysis and Findings

There were 85.1% males and 14.9% females among the 221 respondents. Most respondents (64.2%) ranged from 31 to 45 years old. Although 65.2% of those surveyed were operating in rented space, the remainder operated in their own space. In terms of education, most respondents (57.9%) earned their undergraduate degree. 61.5% of them earned more than BDT 40,000 per month on average, and 42.5% had more than 15 years of experience in the restaurant industry.

Due to the forced shutdown to stop the coronavirus from spreading, revenues of restaurants severely decreased (Rahman & Kuddus, 2021). According to the descriptive analysis, 84.6% (n = 221) of respondents believed their adopted strategies had decreased the decline in the restaurants' profit levels during COVID-19 lockdown.

One of the strategies adopted by the restaurants during COVID 19 included an increase in online dependency. By employing an online meal ordering system, 92.8% of the restaurant owners interviewed reported they could withstand the COVID 19 lockdown, while 84.6% said an online payment option had made transactions simpler. In addition, to survive during the lockdown, 84.2% of the restaurant owners claimed that the take-out service had encouraged people to visit their restaurants. Therefore, the online food ordering initiative might be seen as the most critical measure for sustaining the restaurants during the shutdown.

Due to a drop in sales, many restaurants had to resort to different cost cutting measures to survive during the shutdown. Almost all the restaurant owners (96.4%) admitted that they had to close the operation of the unprofitable branches to avoid going bankrupt. 84.6% of them had to temporarily lay off staff as a cost-cutting strategy during the lockdown, while 88.2% of them had to limit capital spending to retain their solvency. Therefore, the restaurant owner believed that all three cost-cutting measures—closing loss-making outlets, laying off employees, and reducing capital spending—were very effective. Closing the underperforming branches, however, was relatively more effective in maintaining profit levels.

By enduring numerous difficulties during COVID-19, the restaurant owners displayed resilience (Messabia, N., 2022). While 88.2% of restaurant owners utilized their personal funds, more than half of the restaurants (52%) used accumulated profits to finance their expenditures during the shutdown. In addition, 91.9% of the restaurant owners had to bear the losses themselves to keep their operations sustainable. It can be inferred that the

restaurant owners believed that their ability to endure losses best exemplified resilience.

Extent to which the independent variables can account for the dependent variable

Regression analysis was conducted to see how much the independent variables employed in the graphical model could explain the dependent variable, Profit levels.

Regression equation, $Y = \alpha + \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \dots + \beta_n \chi_n$

Y= Dependent variable (Profit levels of the restaurant)

α = Intercept

β = Coefficient of independent variable

χ = Independent variable (Online dependence, Cost reduction, Resilience).

Table 2: Regression model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.890 ^a	.792	.789	.327

a. Predictors: (Constant), Resilience, Cost reduction, Online dependence

Table 2 above displays the regression findings. The R value (R = 0.890) indicates a strong link between the independent variables (Online Dependence, Cost Reduction, Resilience) and dependent variable, Profit level. The Adjusted R-square = 0.789 indicates that variation in the independent variables- Online Dependence, Resilience, and Cost Reduction- can explain 78.9% of the changes in the dependent variable, Profit level of the restaurants. Other variables that were not investigated in this study may have had an impact on the remaining 21.1% of changes in restaurant Profit levels. Other factors such as using strategies like sales promotion, negotiating rent reductions with landlords (Neise et al, 2021), may be explored as part of subsequent research.

4.1 Hypotheses Testing and Results

H1 contends that the restaurants' reliance on the internet during Covid-19 influenced their profit levels. This hypothesis is supported by the regression results in Table 3 ($\beta = 0.530$). This means that online dependence accounts for 53% of variations in profit levels. As a result, increasing online dependence through initiatives like online food ordering and online payments was the most critical element for ensuring restaurant profit during the COVID-19 lockdown. This outcome is consistent with the findings of Wali and Idenedo (2021) and Chowdhury and Haider (2020) that online dependence promotes restaurant revenue.

Table 3: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.499	.137	.000	-3.647	.000
	Online Dependence	.617	.060	.530	10.308	.000
	Cost Reduction	.352	.044	.328	7.994	.000
	Resilience	.167	.063	.138	2.624	.009

a. Dependent Variable: Profit Levels

H2 implies that cost reduction during COVID-19 influenced restaurants' profit levels. The regression result ($\beta = 0.328$) also supports this idea (Table 3). This suggests that cost reduction accounts for 32.8% of restaurants' profit levels. The cost reduction has been achieved by measures such as closing unprofitable branches, laying off employees temporarily and limiting capital expenditure. This viewpoint is supported by Yost et al (2021), who found that reducing needless expenses had a favorable effect on the business. As a result, the restaurants' profit margins improved.

H3 contends that the owners' resilience boosted restaurant profit levels during COVID-19. This relationship has been established. The findings (Table 3) indicate a positive relationship between restaurant owners' resilience and their profit levels ($\beta = 0.138$). It demonstrates that the owner's resilience can account for 13.8% of the restaurants' profit level. The restaurant owners had to utilize their personal savings, accumulated profit and also absorb losses to sustain during COVID 19 crisis. This idea is confirmed by the findings of Neise et al (2021), who demonstrated that enterprises may survive Covid-19 pandemic-related shutdowns by utilizing earnings saved for contingencies.

5. Limitation and Future Research

The first limitation of this study is the survey's target respondents were restaurant owners. However, in most situations, restaurant owners do not run the business entirely on their own. Restaurants are often run by managers and staff. As a result, in some cases, interviews were conducted with managers instead. The second limitation is while the specific restaurants were chosen based on probabilistic sampling by lottery (simple random sampling), the way the areas (Thanas), from which the restaurants has been selected, was chosen is subjective. As a result, the results may differ if other areas (Thana) were considered.

To ensure a more thorough finding, future researchers should investigate some other adaption tactics such as sales promotion, negotiating rent reductions with landlords, and so on during a crisis (Neise et al, 2021). Data was collected from only eight Dhaka City regions (thanas). Future researchers may collect data from restaurants in other parts (thanas) of Dhaka City to make the findings more generalizable. In addition, future studies may analyze digitalization as part of the restaurant industry's changing process rather than as a response plan by the restaurant owners in the aftermath of COVID-19. In fact, the shift towards online food delivery began much before the Covid-19 outbreak. Online food delivery services such as HungryNaki and Foodpanda began operations in Dhaka as early as 2013. Since then, the demand for online food delivery has been rising and it increased significantly during the pandemic. As a result, future studies could investigate the structural changes that restaurants will need to make in the future.

6. Managerial Implication

First, the most successful strategies identified through this study on the restaurant industry's current efforts to address the financial issues during the COVID-19 outbreak might be applied with other firms (Kim et. al, 2021). The introduction of online ordering and delivery as well as online payment systems were critical for restaurants to increase sales. As a result, some of these methods may be used by businesses such as restaurants in the future even at normal times as consumers are already habituated with online food. Second, this research may also be significant for online food delivery businesses. Consumers' desire to use online food delivery services has grown due to factors such as convenience, privacy, and security (Lau & ng, 2019). Restaurants that form strong alliances with online food delivery companies have proved to be more profitable. To succeed, online food delivery enterprises should, therefore, try to provide efficient services to restaurant consumers.

7. Conclusion

Since restaurant industry provides non-emergency services, it was seriously affected by the government's COVID 19 stringent lockdowns in Bangladesh. Our results demonstrate how restaurant owners dealt with the COVID-19 situation. Many restaurant owners have learnt to be innovative, run their businesses strategically, and respond quickly to change (Messabia et al, 2022).

First, while investigating restaurant owners' innovations, our research stressed the relevance of digital technology adoption. Using online delivery,

online payment, and takeaway to serve customers have confirmed its usefulness in achieving higher sales amid COVID 19 crisis (Wali & Idenedo, 2021). In fact, the results showed that the adoption of online sales was the most critical factor for ensuring the restaurant's profit (Table 3).

Second, our findings suggest that the restaurant owners must be prompt in closing unprofitable outlets to reduce their costs during a crisis. In addition, they also need to postpone capital expenditure as well as reduce staff. Strategies like closing unprofitable outlets have been found to be the most important cost reduction measure. Cost reduction itself had the second most impact on the restaurant's profit (Table 3).

Third, while examining organizational resilience, our research emphasizes the importance of the owner's financial stability. Our findings reveal that businesses with accumulated earnings and considerable personal savings of the owners are more robust during crises like COVID-19 as they helped the owners to bear the losses during the shutdown. Resilience had comparatively the lowest yet significant impact on the restaurants' profit (Table 3). As a result, organizations are incentivized to keep enough assets as reserves to lessen the risk of failure during a crisis (Neise et al, 2021).

Because of the drastic shift in consumer behavior triggered by COVID-19, restaurants ought to adopt a more flexible approach. The COVID-19 crisis may be viewed as part of the ever-changing environment that enterprises must contend with. Therefore, business strategies must be adopted based on continuous market research (Vig & Agarwal, 2021).

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