

Strategic Responses and Organizational Adaptations of Some Manufacturing Companies During the Community Quarantine Due to COVID-19 Pandemic

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Abstract: The COVID-19 pandemic crisis was abrupt, worldwide in scope, and its effect on individuals, organizations, and economies was devastating. Such crisis and emergency need appropriate and timely response. This paper intends to know how business firms responded to the challenges posed by the COVID-19 pandemic. Specifically, it aims to determine the strategies adopted by manufacturing companies, to mitigate the adverse impact of quarantine and lockdown. In view of this objective, a survey was conducted involving seventeen companies, operating in the Province of Cavite, which is a home for eight special economic zones. The study aims to gather information on how business organizations in the provincial level survived the crisis, and hopefully, use it as initial baseline data for formulating contingency plans for future occurrence of pandemics and health crises. The result showed that 71% of the companies adopted multiple strategies to alleviate the negative effects of the pandemic. Ninety-four percent (94%) of the firms persevered by implementing reduced workweek and scaled-down or “stay-in” production operation; 47% enforced retrenchment in the form of reduction in cost, assets, product lines, and overhead; 59% introduced innovation in production processes to adapt to the pandemic situation; and 35% opted to discontinue the production of less essential products. The result implies that business resiliency depends on the readiness of the organization to handle a crisis and production activities can continue during pandemic without compromising the minimum health standards, provided, appropriate strategies and adaptation plans are implemented. In other words, companies need not shut down during lockdown.

Keywords: Crisis management, manufacturing company, pandemic, production operation, strategic management

1. Introduction

The world almost stood still when the COVID-19 pandemic spread across the globe. Political and business organizations, as well as, educational institutions were caught unprepared. Governments of various countries, enforced lockdown and community quarantine (Brakman et al., 2020). Travel restrictions and social distancing were imposed. Consequently, the majority of businesses have stopped their operations, some, temporarily, but others, permanently (Kumar et al., 2020). Almost only essential services and businesses were allowed to operate. Many companies implemented retrenchment and shortened workweek. Eventually, many employees were dismissed from their jobs. This resulted to economic slowdown or recession and a financial crisis for many business firms (Shafi et al., 2020).

Nobody predicted in the past that a crisis of such magnitude and scope would come about in our times. The fact that it is currently happening and affecting our lives implies that a similar catastrophe could take place again in the future. But the next time such an event occurs, it is hoped that people and organizations would no longer be surprised. This can only be possible, if the collective experience during this pandemic is used as a basis for developing defenses and strategies to combat, prevent, or at least reduce the negative effects, in case a similar event occurred again later. This is not a remote possibility because, historically, we had had already epidemics and pandemics in the past. Some of the worst of these recent plagues and epidemics that wreaked havoc on humanity include the Spanish flu pandemic of 1918 that caused the death of almost 100 million individuals (Chowell et al., 2006), the Asian flu of 1957-1958, and the Flu pandemic of 1889-1890, each of which claimed more than 1 million lives (Jarus, 2020).

The COVID-19 pandemic posed formidable challenges for businesses – unlike any they have ever encountered, forcing a sudden disruption of employees job, customers behavior, supply chains function, and even what fundamentally makes up business performance (Dewar et al., 2020). The business disruptions caused by the global health crisis have opened the door for a change at a speed and scale nobody have imagined or anticipated

before. Consequently, many enterprises have achieved what had been considered infeasible in the past. For example, Unilever transformed their factory lines that were producing deodorants into ones producing hand sanitizer in just four days (Dewar et al., 2020). In a couple of weeks, companies went from having thousands of employees working in offices to having thousands of them working from home. Under a normal situation, this shift might have required policy change and system transformation that would take many years to get implemented.

In this study, various strategies adopted by selected manufacturing companies operating locally in the Province of Cavite, the Philippines, in response to the COVID-19 pandemic crisis at the height of the enforcement of community quarantine and lockdown were considered. The Province of Cavite is one of the five provinces comprising Region IV-A, also known as the CALABARZON (Cavite, Laguna, Batangas, Rizal, Quezon) region. This region has the highest concentration of special economic zones (SEZ) in the country and consists of thousands of manufacturing firms, many of which are foreign or multi-national companies. The Province of Cavite itself is a home for a sizeable number of special economic zones that include among others the Cavite Economic Zones 1 and 2; Daiichi Industrial Park; EMI Special Economic Zone; First Cavite Industrial Estate (FCIE); Gateway Business Park (GBP); Golden Mile Business Park; and People's Technology Complex (PTC).

The four (4) types of potential strategic responses to a crisis, namely: persevering, innovating, retrenchment, and exit, as identified by Wenzel et al. (2020) was used as the framework for characterizing the strategies adopted by the companies. *Persevering* characterizes the course of action or measures taken by the company to sustain its business activities and endure the crisis in the *medium run*. *Innovating* relates to the "realization of strategic renewal in response to crisis" (Wenzel et al., 2020) and the exploration of new alternatives to better adapt to the situation and survive the crisis in the *long run* if it persists for an extended duration. *Retrenchment* pertains loosely to the reduction in expenses, assets, and products by a company in response to economic difficulty to survive in the *short run*, thus, narrowing the extent of its business activities. *Exit* refers to the cessation or discontinuance of a company's business undertakings in response to a crisis. This option is usually taken whenever all other alternative strategies failed.

While preventing the further spread of the COVID-19 virus and saving people's lives are of paramount importance, which are the justification for lockdown and quarantine, discontinuance of business operations and a prolonged work stoppage could have detrimental societal and economic consequences (Ali et al., 2020). Hence, continuity of business operations is necessary. It is opined in this paper that with ingenuity, a clever strategy and adaptation plan could be devised so that a limited form of business operation can continue even during lockdown and community quarantine. It is therefore imperative for the government and business sectors, nowadays, to have well-crafted contingency plans (Kumar et al., 2020) in place for the occurrence of pandemic and other emergencies or health crises that may transpire in the unforeseen future.

As a prelude toward this purpose, it will be helpful if the strategic responses and organizational adaptations implemented by companies that successfully continue their business operations, though in a limited scale, during the height of COVID-19 pandemic, are examined and learn from them. On this note, this paper aims to present and discuss the management strategies adopted by selected foreign manufacturing companies operating in the Province of Cavite, some of which are located in industrial parks and economic zones, and how they adapted to the pandemic situation. It is hoped that the information gathered from this study can be utilized as valuable inputs for crafting strategic plan, policies, and adaptation measures to mitigate the devastating impact of the pandemic against businesses, should it happen again some other time. Moreover, we can use this valuable information to come up with a set of recommendations for improving the resiliency and sustainability of the production systems of manufacturing companies.

The main objective of this study is to determine the strategic responses taken by selective foreign manufacturing companies in Cavite and the extent in which these strategic responses was adopted during the enhanced community quarantine (ECQ) and lockdowns. At the conclusion of the study, it is hoped that the information obtained from this study can serve as a basis for crafting a generic contingency or adaptation plan that can be adopted by companies during pandemics.

2. Methodology

This study used the descriptive method and adopted the convenience sampling technique due to several practical reasons including the pandemic-related restrictions. The Province of Cavite was selected since it provided the most conveniently available pool of respondents. In convenience sampling, there are no criteria required to be included in the sample. Hence, all members of the population are eligible with proximity as determining factor to be part of the sample. Consequently, this study focused on selected manufacturing companies in the Province of Cavite, preferably those manufacturing firms located within or nearby industrial parks and special economic zones. Of these companies, only those that remained operational the entire duration of lockdowns were considered.

The survey questionnaire was the instrument used to gather the raw data needed for the study. The questionnaire was constructed in such a way as to ferret out some demographic information about the respondent and the company he/she represents. Moreover, the survey form included seven major questions that ask for different information related to the strategic responses and organizational adaptation done by the respondent's company. Around thirty (30) survey questionnaires were sent to various companies but only seventeen (17) responded affirmatively. The companies that declined to answer the questionnaire cited confidentiality as the reason for not participating in the survey. The survey questionnaires were sent to the prospective business firms mostly by e-mail addressed to employees occupying management level positions through the assistance of acquaintances and friends working in these companies. The filled-out survey questionnaires were sent back by the respondents by e-mail or through Messenger. The filled-out questionnaires were then collected and simple descriptive statistical analysis was performed to extract the essential and relevant information.

3. Results and Discussion

The processed data, which were gathered from survey questionnaires and validated through other reliable sources, indicate that a number of strategic responses to mitigate the negative effects of community quarantine or lockdowns were adopted by companies operating in the Province of Cavite, notably, those located in industrial parks and economic zones. The responses were classified into four, namely: (1) retrenchment; (2) persevering; (3) innovating; and (4) exit. Table 1 shows that out of the four classified strategies, approximately 47.1% of the companies implemented some types of retrenchment, which refers to cost reduction measures aimed at reducing the extent of the company's manufacturing activities. Interestingly, 94.1% of the companies decided to persevere, which means some mitigating measures were adopted for the purpose of sustaining manufacturing activities. Moreover, 58.8% of the firms indicated that some form of innovation was introduced in the production processes, i.e., reshaping or changing the company's manufacturing activities to better adapt to the pandemic situation and survive the crisis. Finally, 35.3% of the companies signified that they discontinued the production of some of their less essential product lines.

Table 1 Types of strategic responses.

Types of Strategic Responses	Percentage
Retrenchment	47.1 %
Persevering	94.1 %
Innovating	58.8 %
Exit	35.3 %

Around, 70.6% of the total number of 17 companies surveyed adopted multiple strategies, which were either simultaneously or sequentially implemented, and the remaining 29.4% indicated that only one strategic response was adopted. Around 3 out of 4 applied the multiple strategies simultaneously, whereas the remaining ones implemented them in a sequential manner. Table 2 shows the frequency distribution of the companies according to the number of strategies adopted. The data presented in this table reflects the preference of companies to use multiple strategies and mixed approaches to improve the chances of surviving the detrimental effects of the pandemic crisis.

Table 2 Number of types of strategies adopted.

Number of Strategies	Percentage
1	29.4 %
2	23.5 %
3	29.4 %
4	17.6 %

Table 3 shows the frequency distribution of companies with respect to the forms of retrenchment enforced by the firms. The result showed that 29.4% opted to lessen the cost, 11.8% chose to reduce the assets, 11.8% lowered the number of products, 5.9% decreased the product lines, and 11.8% minimized the overhead expense.

Table 3 Forms of retrenchment adopted.

Retrenchment Strategy	Percentage
Cost	29.4 %
Asset	11.8 %

Product	11.8 %
Product lines	5.9 %
Overhead	11.8 %

The frequency distribution of companies based on persevering strategic response is shown by Table 4. Approximately, 47.1% of these persevering companies adopted a “lock-in” or “stay-in” operation, 76.5% scaled-down their production operation, 29.4% enforced a reduced workweek scheme, and 11.8% used other schemes. Some of the companies provided their employees, especially the factory workers, extra benefits such as temporary shelter nearby or within the premises of the companies and free transportation for front liners. Other companies converted some of their office spaces to temporary shelters while some rented boarding houses around their vicinity. Some of the employees were allowed to work from home and were rarely required to report personally. Because companies situated in industrial estates like the First Cavite Industrial Estate (FCIE) have their own respective canteens inside their buildings, which are operated by private food concessionaires, food availability was never a problem.

Table 4 Persevering strategic response.

Number of Strategies	Percentage
Reduced workweek scheme	29.4 %
Stay-in/lock-in operation	47.1 %
Scaled-down operation	76.5 %
Other schemes	11.8 %

Table 5 presents the frequency distribution of companies, which introduced innovative strategies in the production process. The survey results indicated that 23.5% of the companies explored alternative ways while 35.3% simply modified their current production processes to be able to adapt to the pandemic situation. So far, no companies diversified into other products nor explored other options like converting their factory lines into ones that make pandemic-related products such as personal protective equipment (PPE), face shields, and face masks.

Table 5 Innovating strategic response.

Number of Strategies	Percentage
Exploration	23.5 %
Adaptation	35.3 %

Finally, Table 6 shows the frequency distribution of business firms according to reasons for discontinuance of some of their products. Business firms resorted to the exit strategy as the last option when all other strategies did not deliver the expected outcome. Based on the data reflected in the table, majority of the companies that opted to discontinue the production of less essential products believed that no other response would help the company to survive the crisis. Approximately, 5.9% cease the production because the other strategic responses failed to give favorable result. Moreover, another 5.9% cited other reasons for discontinuation.

Table 6 Reasons for exit strategic response.

Reason for Exit Strategy	Percentage
Other strategies failed	5.9 %
No other strategy could help	23.5 %
Other reasons	5.9 %

When it comes to the effectiveness of the selected strategic responses and organizational adaptation plan, Table 7 shows that around 35.3% of the firms indicated that the strategies were at least 76% effective, whereas 64.7% indicated that the strategies they adopted were from 51% up to 75% effective. Overall, the weighted average of these data indicated that the various strategies adopted by these companies were 71.8% effective.

Table 7 Effectiveness of strategic response.

Degree of Effectiveness	Percentage	Verbal Description
(0 - 25) %	0.0 %	Not effective
(26 - 50) %	0.0 %	Somewhat effective

(51 - 75) %	64.7 %	Effective
(76 - 100) %	35.3 %	Very effective

As can be gleaned from the foregoing presentation of results, a number of important points are worth considering. It follows from the experiences of the concerned companies that a manufacturing firm does not need to stop its production operation during community quarantine and lockdowns provided that certain strategies are adopted consistent with the requirements for the observance of minimum public health standards (Ocampo & Yamagishi, 2020) or protocols such as social distancing and the wearing of masks and face shields as mandated by the government. One way to achieve this is for a company to adopt a “stay-in” production operation scheme either by converting extra office spaces to temporary shelters or by renting apartments and boarding houses for their employees around the vicinity, which is within a walking distance from the company premises. The risks of getting infected by the virus are minimized since the factory workers and other employees are confined in one place and their movements are restricted. Companies may also hire shuttle buses or vans for front liners and essential workers that are situated in distant places or that need to travel to far locations.

Moreover, a company may scale-down its production activities to minimize the operational expense. Certain forms of retrenchment may be enforced such as a reduction in overhead cost and by limiting the production to essential product lines. A work-from-home arrangement may be implemented for services that can be done remotely. Innovations in the production process may also be introduced so that a company can better adapt to the pandemic situation. A company may also explore other ways of doing the old things. One way to accomplish this is through digitalization. In fact, the pandemic crisis provided the impetus for most companies to hasten their digital transformation. Automation, which reduces human interventions, also provides a good alternative. Robotics and artificial intelligence (AI) are also worth considering if the companies are in the position to implement them. The experience we went through during the COVID-19 pandemic requires companies to develop agile strategies to make their business operations viable. It is recommended that a crisis management team be formed within a company (Bundy et al., 2017). This team should be responsible for developing contingency plans that can be implemented any moment that a crisis arises such as the COVID-19 pandemic. The contingency plans must be formulated in such a way that a company can act swiftly and flexibly.

This result of the study implies the idea of collaboration among companies situated in densely populated urban areas to ensure continued business activities during a health crisis such as the COVID-19 pandemic. Different sectors such as the business, lodging, transportation, and food delivery service or catering industries, should come together and exchange their services. For example, a business firm can rent nearby boarding houses, apartments or hotels to provide temporary shelters for housing their workers in one place or rent shuttle buses to provide exclusive transportation for their employees. Moreover, the company may enter into a deal with a restaurant for food delivery service or catering, and so on. Through this collaborative scheme, shutdown of businesses can be significantly minimized during lockdown.

4. Conclusion

The results of the study showed that the strategic responses by business firms to the COVID-19 pandemic crisis at the time of quarantine and lockdown fit into the four types identified by Wenzel et al. (2020), namely, persevering, innovating, retrenchment, and exit. The persevering response took the form of reduced workweek, scaled-down, and stay-in or lock-in production operation. The innovating response assumed the form of exploration and process adaptation or modification. Retrenchment took the form of reduction in cost, asset, products, product lines, and overhead expense. The adoption of these strategies was consistent with the minimum health standards and found to be effective in mitigating the adverse effect of the pandemic. Moreover, the results provided insights and initial baseline data for crafting contingency plans for future occurrence of health crisis.

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