



Sustainability of SMEs during the COVID-19 Pandemic

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Received : June 21, 2023

Revised : July 15, 2023

Accepted : July 28, 2023

Online : July 31, 2023

Abstract

Small and Medium Enterprises (SMEs) are vital to the Philippine economy. As the COVID-19 pandemic became more widespread, business activity was negatively impacted, strict quarantine measures were implemented, business operating hours were shortened, and the demand for labour from rural and remote areas decreased. With these new solutions, new measures and protocols are adopted and enforced to protect the safety of employees and consumers. The objective of this study is to determine how the COVID-19 pandemic affected the business sustainability of SMEs. The variables used to assess business impact are supply chain, business relations, resurging, cash flow, and work remotely. This study focuses solely on registered SMEs that existed before the pandemic and were still operational when the study was conducted. Survey questionnaires were used to gather data from business owners. Responses from the participants were presented in tabular form, along with brief explanations of the results. The statistical hypothesis was evaluated using a one-way ANOVA and a two-sample T-test. The results showed the assessment of SME owners regarding the impact of the five variables on the sustainability of their businesses. Importantly, the study highlighted additional measures that can be used to analyze better and evaluate which areas of businesses are impacted by the COVID-19 pandemic and how to keep those businesses afloat.

Keywords *Sustainability, SMEs, Supply Chain, Business Relations, Resurging, Cash Flows, Work Remotely*

INTRODUCTION

COVID-19 has affected every facet of the global economy since the health protocols were implemented to safeguard people's health and stop the virus from spreading. Because of this, the pandemic significantly impacted small and micro businesses (Hidalgo et al., 2021). SMEs play a critical role in Philippine economic development since they provide jobs for the country's growing labour force and partner with larger corporations. Still, they are the ones that suffered severely as a result of the supply chain interruptions and tightened financial constraints (Shinovaki & Vandenberg, 2020) due to the pandemic. In a World Bank survey conducted in November 2020, a significant proportion of small businesses had voluntarily closed their doors or were operating at less than capacity. Financial limitations, cash flow problems, and a lack of external funding sources are a few of the leading causes. Another is restricted operation, insufficient demand, supply chain disruptions, and a lack of patronage. The country's changing community guidelines forced the government to gradually ease the restrictions and permit some businesses to operate in their area. However, only 5 percent of businesses that remained open between July and November 2020 reported increased sales, while two-thirds of these enterprises declined (World Bank, 2020).

Throughout our research, we observed several literature reviews on sustainability that sought to organize the topic of several researchers in a single document. However, we also identified some gaps, namely: the methodological characteristics of the publications, broken down into context, application area and research methods used; the main research clusters on business sustainability, which took into account current aspects, such as COVID-19; the main contributions of business sustainability, segmented into improving the organization's performance, the main barriers that organizations must overcome and; the main guidelines that organizations must follow

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to overcome barriers.

Business owners tackle sustainability issues in a more integrated manner. Some of them succeeded in overcoming those challenges, but also some have failed to do so. The enterprises' survivability is always in question since no one knows when the pandemic will end, and there is inadequate data or information to accurately anticipate what will happen to the economy in a few months. The resiliency of the businesses is primarily affected by how adaptive and innovative the owners are. This study is based on the research paradigm stating that the businesses' sustainability is directly affected by the five variables: supply chain, business relations, resurging, cash flow, and working remotely during the COVID-19 pandemic. It will also prove differences in business sustainability on account of the five variables when their profile is considered.

LITERATURE REVIEW

Business Sustainability

Pandemics, natural catastrophes, terrorist attacks, economic slumps, equipment failure, and human error can all risk an organization's operation and infrastructure's long-term viability (Hamsal & Ichsan, 2021). Globally, enterprises were severely disrupted, and most of them are looking for methods to withstand the COVID-19 pandemic. It is especially true for SMEs whose owners have little recourse. These enterprises are figuring out how to connect with their employees, customers, and the law. Business owners must balance short-term and long-term survival as employees and communities struggle to function and succeed while coping with daily life (Al-Fadly, 2020).

Company business models had to be revised as a result of COVID-19. In order to recover the performance levels it had prior to the COVID-19 outbreak, businesses are forced to adjust from this catastrophe and need to begin making significant changes to survive the pandemic (Trabucco & De Giovanni, 2021).

In a business context, "sustainability" refers to a sustainable organization, which is headed for a desirable future state involving sustained revenue growth. Enterprises that actively manage and respond to diverse sustainability indicators have a higher capacity to produce long-term value (Chang & Lin, 2019).

SMEs

The Philippine Statistics Authority (2020) stated that the Philippines had 957,620 business enterprises in 2020. The MSMEs account for 952,969 or 99.51 percent, while large enterprises account for 4,651 or 0.49 percent. Micro-enterprises constitute 88.77 percent, which is 850,127 of total MSME establishments, followed by small enterprises accounting for 10.25 percent amounting to 98,126 and medium enterprises at 0.49 percent or 4,716 in total.

In the Updating of the List of Establishments (ULE) by the Philippine Statistics Authority (2021), the overall number of business enterprises in 2021 has changed, with 1,080,638 business enterprises currently operating in the Philippines. The number of micro, small, and medium-sized enterprises (MSMEs) has increased to 1,076,122, or 99.58 percent, while the number of large enterprises has decreased to 4,516, or 0.42 percent. Micro-enterprises account for 90.85 percent of all MSMEs with a total value of 977,670, followed by 8.74 percent of small enterprises with a total value of 94,008 and 0.41 percent of medium-sized enterprises with a total value of 4,444.

Belas et al. (2020) state that small and medium enterprises are the most vulnerable to the threats of the pandemic. Therefore, SMEs must continue to establish business plans, compete in the market, and adapt to increasingly rapid environmental changes to preserve their performance and business in this climate.

RESEARCH METHOD

Research Methods Used

This study is descriptive research emphasising exploratory design to achieve the desired data. This type of research aims to discover and analyze trends and changes in the population.

Population and Sampling Technique

To determine the sample size, the researchers utilized the G*Power 3.1.9.4 using Ftest at a 5% significant level that deemed 132 samples. G*Power offers all types of power analyses that users might need in a research study.

Description of the Respondents

The respondents of this study included 132 business owners of small and medium enterprises in Quezon City, which were selected by the researchers using quota and convenience sampling. 101 were small enterprises, and 31 were medium enterprises identified with the use of G*Power at a 95% confidence level.

Table 1. List of SMEs (Based on sample size)

Variables	Groupings	Frequency	Percentage
Small and Medium Enterprises in Quezon City	Small	101	76.5%
	Medium	31	23.5%
Total		132	100%

Description of Instruments Used

The researchers utilized an electronic survey questionnaire to gather the necessary data to achieve the study's aim. The electronic survey questionnaire is a researcher-crafted questionnaire that was available and administered online via Google form link or QR code. The questionnaire is divided into two parts: the profile of the respondents; and the level of impact posed by COVID-19 on the SMEs' sustainability in terms of the following five variables: supply chain, business relations, resurging, cash flow, and work remotely.

Validation of Instruments

Before distributing the survey questionnaire to respondents, it was evaluated and validated by a group of experts whom the researchers had carefully chosen. After minor revisions arising from face and content validation, the survey questionnaire crafted by the researchers was subjected to Cronbach's alpha verification. The questionnaire used in the study has excellent reliability, as determined by Cronbach's alpha value of 0.957.

Data Collection

After the government lifted the restrictions due to the declining number of COVID-19 cases in the Philippines, the researchers conducted face-to-face and virtual data gathering to reach more respondents. The SME owners received a consent letter before answering the questionnaire the researchers gave to request their participation in the data gathering. Once permission was granted, respondents answered the survey through the Google form link provided by the researchers, which would aid in investigating the research study.

Statistical Treatment of Data

The outcome of this study was determined using a set of statistical tools such as frequency and percentage, weighted mean, one-way ANOVA, two-sample T-test, and Shapiro-Wilk Test. These tools aided the researchers in identifying and presenting the concrete interpretation of the study.

FINDINGS AND DISCUSSION

Profile of the SMEs

Table 2 shows the frequency and percent distribution of the SMEs according to the business industry from the 132 total respondents. Our sample of respondents shows that most small and medium-sized businesses in Quezon City are engaged in the wholesale and retail trade business industry, which consists of activities related to the sale of goods and services for personal and household consumption and daily necessities. Despite the limits imposed by the emergence of a global pandemic, most wholesale and retail trade sectors remained operational since they provided consumers with necessities. Aside from that, establishing a business in the Philippines necessitates compliance with stringent regulations, but at a reasonable cost, which has enabled numerous wholesale and retail businesses to initiate operations.

Table 2. Frequency and Percent Distribution of the SMEs According to Business Industry

Business Industry	Frequency	Percent
Wholesale & Retail Trade	44	33.3
Repair of Motor Vehicles and Motorcycles	6	4.5
Accommodation and Food Services	26	19.7
Other Service Activities	11	8.3
Manufacturing	10	7.6
Human Health and Social Work Activities	4	3.0
Information and Communication	6	4.5
Others	25	18.9
Total	132	100.0

Table 3. Frequency and Percent Distribution of the SMEs According to Number of Years in Operation

Number of Years in Operation	Frequency	Percent
0 – 5 years	74	56.1
6 – 10 years	27	20.5
11 – 15 years	18	13.6
16 – 30 years	11	8.3
31 years and above	2	1.5
Total	132	100.0

During the pandemic, people's lives and economic activities have been severely limited to safeguard their health and prevent the spread of the virus. Travel bans, temporary school and work

closures, and social isolation have all been accompanied by quarantines, leading to an economic crisis impacting corporate sectors. Small and medium-sized enterprises were most at risk from the pandemic's dangers (Belas et al., 2020). Most private-sector enterprises had to temporarily lay off staff due to decreased output and service delivery. Due to insufficient working capital, they are unable to continue operations. COVID-19 containment increases the likelihood of business failure and insolvency (Shinovaki & Vandenberg, 2020).

Table 4. Frequency and Percent Distribution of the SMEs According to SMEs Classification

SMEs Classification	Frequency	Percent
Small Enterprise	101	76.5
Medium Enterprise	31	23.5
Total	132	100.0

The unexpected occurrence of the COVID-19 pandemic had a significant impact on several business operations, particularly SMEs. The Senate Economic Planning Office (2020) study stated that MSMEs contribute to poverty reduction by providing jobs for the country's growing labour force. SMEs are considered key components of economic progress; however, they are frequently the most susceptible to unexpected public emergencies (Lu et al., 2022). Despite this, most SMEs are adapting new plans and executing adjustments to maintain and survive operations amid the pandemic. As a result, more opportunities are created to make a significant contribution to reducing the unemployment rate and continuously providing the community with services.

Assessment of the Impact of the Covid-19 Pandemic on the Sustainability of SMEs in Quezon City

Supply chain resilience is an adaptive capability that permits planning for unforeseen events, recovering from disruptions, and continuing operations as expected (Chowdhury & Quaddus, 2019). The supply chain is currently experiencing more worry due to resilience cautioned against this and emphasized the importance of using efficient tools to assist resilient supply chain decisions.

Supply chain activities are occasionally disrupted by both common and uncommon disasters (Kumar & Stecke, 2009). One great example is the COVID-19 pandemic, which significantly influenced global supply chains (Chowdhury et al., 2021). This was supported by Santamaria and Swanson (2021), who stated that pandemics are specific situations of supply chain risk management that are distinguished from ordinary supply chain disruptions by long-term disruption, a ripple effect of disruption propagation, and severe uncertainty.

In general, COVID-19 has significantly impacted the output of numerous supply chains. Food production has been hindered by governments' numerous lockdown and restriction orders. Production schedules have been disrupted, and the production crew has been decreased due to closed and partially operational enterprises and restricted locations. Production of food and ingredients is essential because it is the first step in securing both food security and other people's lives (Montenegro & Young, 2020).

Lastly, during the COVID-19 pandemic, every company would be better off if the production system was developed using the notion of sustainability, which considers three factors: economic, environmental, and social. Sustainability is a long-term dynamic that must be addressed in order to

meet a variety of difficulties. They must address social, environmental, and financial issues to achieve sustainability, and all three are intertwined with the supply chain (Indah et al., 2021).

Table 5. Assessment of the Level of Impact of the COVID-19 Pandemic on the Business Sustainability of SMEs in Terms of Supply Chain

A. Supply Chain	Weighted Mean Rating	Verbal Interpretation (VI)
A1. Collaboration with key suppliers to produce strategic goals and projections.	4.49	Major Short-Term Impact
A2. The pandemic resulted in a lack of consumers, reducing supply orders.	4.13	Long-Term Impact
A3. My enterprise must adapt measures to ensure that supplies reach their destination.	4.33	Major Short-Term Impact
A4. The changes in market demand affected my enterprise's supply requirement.	4.38	Major Short-Term Impact
A5. The advertised delivery dates and quantities by the supplier have been disrupted.	4.10	Long-Term Impact
A6. The availability of supply affected my enterprise's sales.	4.31	Major Short-Term Impact
A7. My enterprise is concerned about the changes in prices of supplies brought about by the pandemic.	4.65	Major Short-Term Impact
A8. Suppliers had stopped operating during the lockdown and curfew periods, causing serious supply chain management challenges for my enterprise.	4.19	Long-Term Impact
Total Weighted Mean	4.33	Major Short-Term Impact

Table 6. Assessment of the Level of Impact of the COVID-19 Pandemic on the Business Sustainability of SMEs in Terms of Business Relations

B. Business Relations	Weighted Mean Rating	Verbal Interpretation (VI)
B1. My enterprise made changes in business operations and service delivery to protect my enterprise from the COVID-19 pandemic.	4.58	Major Short-Term Impact
B2. My enterprise must continue to adapt to the customer needs and the effect of COVID-19.	4.64	Major Short-Term Impact

B3. My enterprise has its own funding (e.g., cash on hand or savings) or alternative/external funding (e.g., loans or grants) to help my enterprise to recover.	4.48	Major Short-Term Impact
B4. The lockdown caused a drop of 25% to 50% in my enterprise's revenue.	4.40	Major Short-Term Impact
B5. Due to constricted funds, my enterprise was unable to pay its employees on time.	3.08	Short-Term Impact
B6. My enterprise had to work under a limited timeframe, particularly during non-curfew hours, yet adhering to the schedule was challenging.	4.20	Long-Term Impact
B7. The provided discounts and bonuses for clients and customers affected my revenue.	3.70	Long-Term Impact
B8. My stakeholders (e.g., investors, suppliers, customers, or employees) have been severely affected and are unable to function normally.	3.94	Long-Term Impact
Total Weighted Mean	4.13	Long-Term Impact

Many businesses are looking for new ways to provide their customers with goods and services as a result of the pandemic-induced global economic downturn. While the lockdown rendered many industries, including back-office service providers, financial services, consulting, and media, unable to continue providing their services, they were compelled to quickly adapt and start operating in alternative ways to ensure business continuity (Carnevale & Hatak, 2020; Kabadayi & Tuzovic, 2020). This shows that despite the challenges presented during the pandemic, SMEs could still stay profitable even if their ability to pay immediate operational expenses due to constricted funds made a short-term impact on their sustainability.

Table 7. Assessment of the Level of Impact of the COVID-19 Pandemic on the Business Sustainability of SMEs in Terms of Resurging

C. Resurging	Weighted Mean Rating	Verbal Interpretation (VI)
C1. Due to limited capacity, adapting third-party delivery services into my enterprise allowed me to serve more customers.	3.91	Long-Term Impact
C2. My enterprise implemented social distancing and sanitation policy to ensure health guidelines imposed by the government.	4.47	Major Short-Term Impact
C3. My enterprise volunteered to allocate its resources (e.g., transport facilities) to aid	3.72	Long-Term Impact

in quarantine purposes which significantly affected my business operations.		
C4. Utilization of social media platforms as an avenue to advertise my products or services and communicate with my potential consumers.	4.48	Major Short-Term Impact
C5. Implementation of innovative practices by developing new administrative procedures or processes to enhance my enterprise's performance.	4.45	Major Short-Term Impact
C6. Providing training and development programs to improve my employees' efficiency and productivity.	4.11	Long-Term Impact
Total Weighted Mean	4.25	Long-Term Impact

The COVID-19 pandemic has caused modifications to advertising, marketing, and other promotional strategies, requiring businesses to assess their current and future advertising and marketing operations to adapt to a new normal system. SMEs must consider digital marketing through social media platforms to increase interaction and establish a strong online brand community (Aladejebi, 2020). Furthermore, the government has implemented several policies during the COVID-19 outbreak, including a social distancing and sanitation policy to slow the spread of the virus. In order to comply with the rules of social distancing and the ban on mass gatherings, many small enterprises were forced to close their doors to the public temporarily.

For some businesses, the transition from physical to digital sales has been an integral part of their business plans, making them resistant to this pandemic. However, these measures substantially affected other businesses without a digital strategy. Therefore, business owners should be prepared to implement innovative solutions and practices, such as new advertising and administrative methods, for work enhancement and increased performance (Herliana, 2015).

Lastly, the company's competitiveness and sustainability will increase if it invests in its employees by providing them with training and development programs to expand their skill sets and knowledge base. Aside from that, third-party delivery services significantly impact the owners' ability to continue offering their products or services throughout the pandemic.

Table 8. Assessment of the Level of Impact of the COVID-19 Pandemic on the Business Sustainability of SMEs in Terms of Cash Flow

D. Cash Flow	Weighted Mean Rating	Verbal Interpretation (VI)
D1. My enterprise's current cash flow can sustain the following months of my business operations.	4.43	Major Short-Term Impact
D2. My enterprise's expenses concerning rent, utilities, loans, salaries and wages, and invoices payment significantly affected my enterprise's cash flow.	4.36	Major Short-Term Impact

D3. My enterprise incurred a huge amount of loss of revenue due to decreased profitability and sales.	4.01	Long-Term Impact
D4. My enterprise took a long time to recover from losses due to COVID-19.	3.86	Long-Term Impact
D5. My enterprise will consider different financial options (e.g., loans from banks or individual lenders, cost reduction, equity or debt financing) to sustain my enterprise's cash flow.	3.72	Long-Term Impact
D6. My enterprise did a lot of cost reduction related activities (e.g., lay off employees, lessen operation or borrowing costs) to manage my cash flow deficit.	3.76	Long-Term Impact
Total Weighted Mean	4.02	Long-Term Impact

According to Lu et al. (2020), when the cash flow of SMEs is depleted due to various company expenditures that directly affect business operations, such as wages, taxes, and rents, business owners choose to declare bankruptcy. This is because the global spread of the COVID-19 pandemic threatens the sustainability of SMEs. Business owners are most worried about their employees' health, a cash shortage, and the possibility of losing market share (Beraha & Duricin, 2020).

Furthermore, an enterprise is more likely to raise capital expenditures or fail if it has negative cash flow (Belghitar et al., 2021). Businesses that fail to account for a decline in cash flow and are unable to keep up with rising expenses will have a shortage of liquidity (Gourinchas et al., 2020). Parilla (2021) states that businesses suffer from a decrease in demand, transportation issues, a loss of profit, and a decline in sales, which forces them to consider other ways to compensate for the cash flow deficit, such as reducing employees, delaying expansion plans, applying for loans, and downsizing operations to reduce costs.

Table 9. Assessment of the Level of Impact of the COVID-19 Pandemic on the Business Sustainability of SMEs in Terms of Work Remotely - Digital Solutions

E. Work Remotely - Digital Solutions	Weighted Mean Rating	Verbal Interpretation (VI)
E1. Working remotely provides safety for customers and employees during the pandemic.	3.98	Long-Term Impact
E2. Remote working arrangements permit employees to provide the usual services to our customers in a safe manner.	3.87	Long-Term Impact
E3. Working remotely results to differences in the productivity of my employees against onsite working.	3.69	Long-Term Impact

E4. Implementing remote working arrangements increases my enterprise's operational expenses.	3.70	Long-Term Impact
E5. Working remotely makes it impossible to account for the actual hours that my employees spent producing the required outputs.	3.72	Long-Term Impact
Total Weighted Mean	3.79	Long-Term Impact

Adopting digital practice is somehow challenging for some SMEs, but without adopting, it will be very difficult to survive (Rwigema, 2020). Businesses were required to work on digital channels to provide their products and services safely and without physical contact with their customers (Seetharaman, 2020). The rise of electronic purchasing transactions during the COVID-19 pandemic has caused a change in demand for specific products. Wellness products have significant demand (Hu & Kee, 2020).

Statistica's online survey shows Filipinos primarily purchased dry food items and canned preserved goods. Rather than leaving their houses and risking contracting the virus, most purchased it through their preferred online channel. Malls, supermarkets, and food businesses now offer online services to improve their customers' convenience and meet shifting consumer demand for products and services. It will also increase online retailers' returns on their online advertising, increasing their online marketing expenditures.

Additionally, e-commerce and e-banking services have increased and become more prevalent. Most SMEs are not only adopting an online business strategy but also using it in their customer transactions (e.g., mobile online payments, pick-up delivery, and shipment via trusted couriers) to decrease physical interaction (Ching et al., 2021).

Apart from that, with its live-streaming capability, social media is rapidly establishing itself as a forum for retail sales. Business owners can create their social marketing pages to interact with a larger audience and attract new customers. However, as mentioned by Hanna (2020), the presence of information and communication technology (ICT) adoption challenges among SMEs as a result of insufficient capacities and risks. According to Pelletier and Cloutier (2019), they are typically hesitant to accept new technologies due to the requirement for new skills, the difficulties in building a shared understanding of how ICT is integrated into their enterprises, and the challenge of aligning strategic goals.

Table 10. Assessment of the Level of Impact of the COVID-19 Pandemic on the Business Sustainability of SMEs in Terms of Work Remotely - Online Presence

E. Work Remotely - Online Presence	Weighted Mean Rating	Verbal Interpretation (VI)
E6. Digital marketing is necessarily required for my enterprise to reach my customers hindered by safety protocols.	4.53	Major Short-Term Impact
E7. Developing an online presence will increase the number of customers, sales, and revenue of my enterprise.	4.63	Major Short-Term Impact

E8. Digital marketing strategy and online business operations will improve my enterprise’s brand recognition.	4.61	Major Short-Term Impact
E9. Digital marketing strategy and conducting business online are essential to the sustainability of my enterprise under the challenges posed by COVID-19.	4.55	Major Short-Term Impact
Total Weighted Mean	4.58	Major Short-Term Impact

During the COVID-19 pandemic, people have been compelled to use their professional abilities, the internet, social media, and activities conducted from the comfort of their homes. The importance of media and digital platforms has increased significantly during this pandemic which has been a challenge for most during the lockdown—using digital marketing, a connection between the brand's customers facilitating customer engagement. SMEs can use digital marketing via social media to expand their product marketing reach during a pandemic and increase consumer awareness (Khomah et al., 2021).

Some business owners of small and medium-sized enterprises used digital marketing to keep their businesses afloat during the COVID-19 pandemic by increasing sales and gaining more clients. This was done through their online presence. In fact, most customers now prefer to look at products on social media sites such as Facebook, YouTube, and Twitter since it is more convenient (Dash & Chakraborty, 2021). The customer can always check the product on the internet before choosing which one to purchase, and after that, they can either go to the store directly or purchase it online. Shop owners who do not yet have an online presence will be at a disadvantage when competing against shop owners who also provide online catalogues on their websites.

Significant Difference in the Respondents’ Assessment of the Impact of the Covid-19 Pandemic on the Sustainability of the SMEs in Quezon City when they are Grouped According to Sustainability

Table 11. Significant Difference in the Level of Impact on the SMEs' Sustainability When they are Grouped According to Business Industry

Sustainability	Business Industry	Weighted Mean	Rank	P-Value	Decision	Interpretation
Supply Chain	Wholesale & Retail Trade	4.23	4	0.800	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Repair of Motor Vehicles and Motorcycles	4.27	6			
	Accommodation and Food Services	4.49	2			
	Other Service Activities	3.76	7			
	Manufacturing	4.48	3			
	Human Health and Social Work Activities	4.06	5			

	Information and Communication	3.50	8			
	Others	4.76	1			
Business Relations	Wholesale & Retail Trade	3.92	6	0.136	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Repair of Motor Vehicles and Motorcycles	4.50	2			
	Accommodation and Food Services	4.14	5			
	Other Service Activities	3.88	7			
	Manufacturing	4.72	1			
	Human Health and Social Work Activities	4.28	4			
	Information and Communication	3.40	8			
	Others	4.43	3			
	Resurging	Wholesale & Retail Trade	4.07	8	0.773	FAIL TO REJECT HO
Repair of Motor Vehicles and Motorcycles		4.27	3			
Accommodation and Food Services		4.20	5			
Other Service Activities		4.36	2			
Manufacturing		4.10	7			
Human Health and Social Work Activities		4.25	4			
Information and Communication		4.13	6			
Others		4.65	1			
Cash Flow		Wholesale & Retail Trade	3.99	5	0.998	FAIL TO REJECT HO
	Repair of Motor Vehicles and Motorcycles	3.86	7.5			
	Accommodation and Food Services	4.15	2			
	Other Service Activities	3.86	7.5			
	Manufacturing	4.02	4			
	Human Health and Social Work Activities	4.21	1			
	Information and Communication	3.97	6			
	Others	4.06	3			
	Work Remotely	Wholesale & Retail	3.83	3	0.995	FAIL TO

- Digital Solutions	Trade				REJECT HO	SIGNIFICANT DIFFERENCES
	Repair of Motor Vehicles and Motorcycles	3.53	7			
	Accommodation and Food Services	3.76	4			
	Other Service Activities	3.69	5			
	Manufacturing	3.60	6			
	Human Health and Social Work Activities	3.45	8			
	Information and Communication	3.93	2			
	Others	3.98	1			
Work Remotely - Online Presence	Wholesale & Retail Trade	4.14	7	0.152	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Repair of Motor Vehicles and Motorcycles	3.71	8			
	Accommodation and Food Services	4.97	2			
	Other Service Activities	4.98	1			
	Manufacturing	4.85	4			
	Human Health and Social Work Activities	4.75	6			
	Information and Communication	4.88	3			
	Others	4.78	5			

Table 11 presents the significant difference in the level of impact on the SMEs' sustainability when they are grouped according to Business Industry. Sustainability has the following factors: the supply chain, business relations, resurging, cash flow, work remotely – digital solutions, and online presence.

The null hypothesis is accepted since the computed p-value is 0.152, higher than the significance threshold of 0.05. Hence, there is no significant difference in the level of impact on the SMEs' Work Remotely - Online Presence when they are grouped according to the Business Industry. The P-Value on variables of the supply chain, business relations, resurging, cash flow, work remotely - digital solutions, and work remotely - online presence is higher than the significance threshold 0.05; the null hypothesis is accepted. Hence, there is no significant difference in the level of impact on the SMEs' sustainability when they are grouped according to the Business Industry.

Table 12. Significant Difference in the Level of Impact on the SMEs' Sustainability When they are Grouped According to Legal Form of Business

Sustainability	Legal Form of Business	Weighted Mean	Rank	P-Value	Decision	Interpretation

Supply Chain	Cooperative	4.80	1	0.702	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Corporation	4.19	4			
	One-Person Corporation	4.06	5			
	Partnership	4.28	3			
	Sole Proprietorship	4.38	2			
Business Relations	Cooperative	4.95	1	0.334	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Corporation	4.16	4			
	One-Person Corporation	4.21	3			
	Partnership	4.35	2			
	Sole Proprietorship	4.01	5			
Resurging	Cooperative	4.68	1	0.797	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Corporation	4.28	4			
	One-Person Corporation	4.48	2			
	Partnership	4.40	3			
	Sole Proprietorship	4.15	5			
Cash Flow	Cooperative	4.63	1	0.807	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Corporation	3.90	5			
	One-Person Corporation	4.13	2			
	Partnership	4.04	3			
	Sole Proprietorship	4.02	4			
Work Remotely - Digital Solutions	Cooperative	3.60	5	0.840	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Corporation	3.79	3			
	One-Person Corporation	4.20	1			
	Partnership	4.08	2			
	Sole Proprietorship	3.71	4			
Work Remotely - Online Presence	Cooperative	4.90	2	0.658	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Corporation	4.91	1			
	One-Person Corporation	4.47	4			
	Partnership	4.56	3			
	Sole Proprietorship	4.45	5			

Table 12 shows the significant difference in the level of impact on the SMEs' sustainability when they are grouped according to the Legal Form of Business. Sustainability has the following factors: the supply chain, business relations, resurging, cash flow, work remotely – digital solutions, and online presence.

The P-Value on variables of the supply chain, business relations, resurging, cash flow, work remotely - digital solutions, and work remotely - online presence is higher than the significance

threshold 0.05; the null hypothesis is accepted. Hence, there is no significant difference in the level of impact on the SMEs' sustainability when they are grouped according to the Legal Form of Business.

Table 13. Significant Difference in the Level of Impact on the SMEs' Sustainability When they are Grouped According to Number of Years in Operation

Sustainability	Number of Years in Operation	Weighted Mean	Rank	P-Value	Decision	Interpretation
Supply Chain	0 – 5 years	4.26	4	0.336	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	6 -10 years	4.22	5			
	11 – 15 years	4.65	2			
	16 – 30 years	4.30	3			
	31 years and above	5.44	1			
Business Relations	0 – 5 years	4.12	3.5	0.907	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	6 -10 years	4.14	2			
	11 – 15 years	4.08	5			
	16 – 30 years	4.12	3.5			
	31 years and above	4.88	1			
Resurging	0 – 5 years	4.41	2	0.059	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	6 -10 years	4.30	3			
	11 – 15 years	3.61	5			
	16 – 30 years	3.89	4			
	31 years and above	5.30	1			
Cash Flow	0 – 5 years	4.02	4	0.197	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	6 -10 years	4.15	2			
	11 – 15 years	3.62	5			
	16 – 30 years	4.09	3			
	31 years and above	5.67	1			
Work Remotely - Digital Solutions	0 – 5 years	3.92	2	0.186	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	6 -10 years	3.78	3			
	11 – 15 years	3.21	5			
	16 – 30 years	3.60	4			
	31 years and above	5.60	1			
Work Remotely	0 – 5 years	4.76	2	0.246	FAIL TO	NO SIGNIFICANT

- Online Presence	6 -10 years	4.62	3	REJECT HO	DIFFERENCES
	11 – 15 years	3.99	5		
	16 – 30 years	4.18	4		
	31 years and above	4.88	1		

Table 13 presents the significant difference in the level of impact on the SMEs' sustainability when grouped according to the Number of Years in Operation. Sustainability has the following factors: the supply chain, business relations, resurging, cash flow, work remotely – digital solutions, and online presence.

The P-Value on variables of the supply chain, business relations, resurging, cash flow, work remotely - digital solutions, and work remotely - online presence is higher than the significance threshold 0.05; the null hypothesis is accepted. Hence, there is no significant difference in the level of impact on the SMEs' sustainability when grouped according to the Number of Years in Operation.

Table 14. Significant Difference in the Level of Impact on the SMEs' Sustainability When they are Grouped According to SMEs Classification

Sustainability	SMEs Classification	Weighted Mean	Rank	P-Value	Decision	Interpretation
Supply Chain	Medium	4.36	1	0.849	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Enterprise					
	Small	4.32	2			
Business Relations	Enterprise			0.173	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Medium	3.90	2			
	Small	4.20	1			
Resurging	Enterprise			0.238	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Medium	4.03	2			
	Small	4.32	1			
Cash Flow	Enterprise			0.349	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Medium	3.85	2			
	Small	4.08	1			
Work Remotely - Digital Solutions	Enterprise			0.359	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Medium	3.57	2			
	Small	3.86	1			
Work Remotely - Online Presence	Enterprise			0.742	FAIL TO REJECT HO	NO SIGNIFICANT DIFFERENCES
	Medium	4.51	2			
	Small	4.60	1			

Table 14 shows the significant difference in the level of impact on the SMEs' sustainability when they are grouped according to SMEs Classification. Sustainability has the following factors: the supply chain, business relations, resurging, cash flow, work remotely – digital solutions, and online presence.

The P-Value on variables of the supply chain, business relations, resurging, cash flow, work remotely - digital solutions, and work remotely - online presence is higher than the significance

threshold 0.05; the null hypothesis is accepted. Hence, there is no significant difference in the level of impact on the SMEs' sustainability when grouped according to the SMEs Classification.

CONCLUSIONS

Based on the study that has already been done, some conclusion is made:

1. One-third of the total SMEs surveyed were conducting wholesale and retail trade business. Most of the SMEs are sole proprietorships, and most have been in business for equal to or less than five years. Lastly, many SMEs are small enterprises.
2. The SMEs perceived the highest level of impact from the following: changes in the prices of supplies and collaborations with key suppliers for their supply chain; changes in business operations and adapting to customer needs for business relations; the utilization of social media platforms, social distancing and sanitation policies, and the implementation of innovative practices for resurging; the current cash flow sustainability for cash flow; providing safety to customers and employees for digital solutions; and, for online presence, SMEs perceived a high level of impact from developing an online presence for the growth of the enterprise and from improving its brand recognition.

Regarding the Supply Chain, the pandemic disrupted the supply chains of businesses in Quezon City, which caused shortages of supplies, and because of that, the SMEs were more aware of the supply price changes. Proper communication with the key suppliers was important during the pandemic to make plausible plans to sustain or recover from the disrupted supply chains.

Second, regarding the Business Relations. The SMEs focused on their ability to make necessary adjustments pertaining to customer needs and the COVID-19 effect. In order for the enterprises to survive the COVID-19 pandemic, they made necessary modifications to their business operations and service delivery.

Third, regarding the resurging. During the pandemic, SMEs used social media to promote their enterprises and connect with their potential customers. The enterprises strictly followed the government's health guidelines regarding sanitation and social distancing policies. Furthermore, to enhance the performance of the enterprises, it was necessary to develop new administrative processes to adopt innovative practices.

Forth, regarding the cash flow. The SMEs were concerned about the sustainability of their current cash flow in the following months of business operations.

Fifth, regarding Work Remotely – Digital Solutions. In implementing the work-remote scheme of the enterprises, the safety of the customers and employees was prioritized.

Sixth, regarding Work Remotely – Online Presence. Creating a presence on the internet was needed to increase the enterprise's consumer base and profit. Making strategies related to digital marketing and doing business operations online was necessary to build on its brand recognition.

3. There is no significant difference in the respondents' assessment of the impact of the COVID-19 pandemic on the sustainability of SMEs in Quezon City when they are grouped according to business industry, legal form of business, number of years in operation, and SME classification.
4. In conclusion, the SMEs experienced varied levels of impact on their sustainability in terms of supply chain, business relations, resurging, cash flow, work remotely – digital solutions,

and work remotely – online presence. Two of the variables, supply chain and work remotely - online presence, had a major impact on the enterprises in the short term. Meanwhile, four of the variables, namely business relations, resurging, cash flow, and work remotely - digital solutions were perceived to have a long-term impact on the business. The assessment of the SMEs on the level of impact of COVID-19 on their businesses did not vary significantly, even when the SMEs were grouped into specific categories.

LIMITATION & FURTHER RESEARCH

This study covers the economic disturbances and new policies affecting the SMEs' overall performance in keeping the business afloat amidst the pandemic. The research instrument that will be used in conducting the study will be an electronic survey questionnaire. The researchers will use quota and convenience sampling to invite the participants to be part of this study for the data gathering for quality information and add value to this research.

This study focuses solely on registered SMEs that existed before the pandemic and are still operational at the time the study is conducted. The owner(s) of the registered business shall be the one to answer the survey questionnaire. The number of registered SMEs is based on the most recent data provided by the Philippine Statistics Authority (PSA) on December 31, 2021. The researchers will take the area of SMEs in Quezon City, where most of their residences are located. Moreover, this metropolitan area is among the most affected by the pandemic due to its larger population than other regions. It is recommended to do further research in other settings with different sets of variables to enhance the knowledge about sustainability.

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