

The Impact of COVID-19 Pandemic on Customer Satisfaction and Business Performance

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The COVID-19 pandemic, caused by the SARS-CoV-2 virus, triggered significant global disruptions, leading to widespread restrictions aimed at controlling the virus's spread. These restrictions prompted businesses to rapidly adapt, with a strong focus on digitalization, to meet evolving consumer demands. This study examined the impact of the COVID-19 pandemic on customer satisfaction and business performance in Malaysia. Data were collected from 150 customers and business owners through surveys and observational methods. The findings revealed that perceived usefulness and business reaction were highly significant factors influencing customer satisfaction and business performance. Additionally, perceived overall performance played a crucial role in how businesses navigated the pandemic. However, perceived satisfaction was not a significant predictor, suggesting that while businesses successfully adapted, these changes did not necessarily lead to higher customer satisfaction. The study underscores the importance of agile and customer-centric strategies, emphasizing that businesses must continue to evolve their operational approaches to survive and thrive in an increasingly uncertain environment.

Keywords: Business Performance; Business Reaction; Customer Behavior; Customer Satisfaction; Perceived Usefulness

JEL Classification: D12; D22; L86; M31; O33

INTRODUCTION

The COVID-19 pandemic was more than just a public health emergency; it represented a seismic shift for businesses across the globe. Pre-pandemic, the relationship between companies and their customers was a carefully structured and stable construct. Businesses meticulously mapped customer journeys, closely monitored satisfaction and aimed to deliver emotionally engaging experiences. Customer satisfaction was not only a key metric but also a driving force behind revenue growth, market share expansion, and brand loyalty. Metrics such as market share, customer retention, and positive word-of-mouth acted as rewards for businesses that excelled in fostering meaningful and lasting connections with their customers ([Bughin et al., 2015](#)).

At the core of this well-orchestrated system was technology, playing a crucial role in facilitating seamless customer experiences. Online platforms created frictionless shopping environments, while social media amplified customer voices, allowing for continuous feedback loops and enhancing brand reputation ([Pantano et al., 2020](#)). In this era, customers, empowered by information and emboldened by the transparency provided by digital platforms, became both the harshest critics and the strongest advocates for companies. They demanded transparency, responsiveness, and social responsibility, reshaping how businesses interacted with them ([Lemon & Verhoef, 2016](#)).

This mutual relationship between customer satisfaction and business performance created a virtuous cycle. When customers were satisfied, they became loyal advocates for the brand, enhancing revenue streams and generating positive word-of-mouth. Companies that prioritized customer experience thrived, while those that failed to adapt faced significant challenges, including public criticism, loss of market share, and, in extreme cases, complete irrelevance ([Bughin et al., 2015](#)). These trends were well established, driving competitive advantages for businesses focused on delivering exceptional customer experiences.

However, the onset of the COVID-19 pandemic disrupted this equilibrium, challenging businesses in ways no continuity plan could have anticipated. Lockdowns, social distancing measures, and economic uncertainty completely altered consumer behavior and expectations. The smooth and predictable interactions between businesses and customers quickly devolved into a scramble for adaptation. The pandemic forced businesses to rethink how they engage with customers, as previously structured customer journeys were disrupted, with traditional touchpoints disappearing almost overnight.

The purpose of this study is to examine the profound impact of the COVID-19 pandemic on customer satisfaction and business performance, specifically focusing on businesses in Malaysia. The pandemic not only caused widespread disruption but also acted as a catalyst for innovation, compelling businesses to reimagine their operational strategies. This research aims to highlight how businesses in Malaysia adapted to the rapidly shifting market dynamics, evolving customer expectations, and unprecedented operational challenges.

As physical stores shuttered due to government-imposed restrictions, such as the Movement Control Order (MCO) in Malaysia, the focus of commerce shifted sharply towards online channels. Businesses were compelled to quickly upgrade their e-commerce capabilities and reimagine customer engagement strategies for a screen-centric world ([Lee et al., 2020](#)). This shift accelerated digital transformation across industries, driving unprecedented growth in Malaysia's e-commerce sector. Companies

faced new challenges, such as increased competition in the online space, while simultaneously needing to meet heightened customer expectations for convenience, speed, and safety ([Pantano et al., 2020](#)).

Building and maintaining trust became paramount in this new landscape, with customer satisfaction depending heavily on a company's ability to adapt to the new realities. Supply chain disruptions, travel restrictions, and staffing shortages added further complications, leading to longer wait times, product shortages, and, in some cases, widespread customer dissatisfaction ([Lemon & Verhoef, 2016](#)). Companies had to find innovative solutions to manage customer expectations in the face of unprecedented volatility. For many, digital channels became not just an option but a lifeline to maintain customer engagement and trust ([Lee et al., 2020](#)).

The pandemic tested the resilience of business models, reinforcing the importance of customer-centricity as a cornerstone of business success. Digital-native businesses such as e-commerce platforms and online streaming services thrived, as they were better aligned with the shifting needs of customers who were increasingly home-bound. On the other hand, traditional brick-and-mortar businesses faced existential threats unless they could quickly adapt and innovate to meet the changing demands of their customers ([Pantano et al., 2020](#)). The ability to prioritize customer satisfaction amidst the disruption became a key differentiator between businesses that flourished and those that faltered.

This study contributes to the growing body of literature by providing empirical evidence on how the COVID-19 pandemic reshaped customer satisfaction and business performance in Malaysia. It highlights the critical role of adaptability in navigating unprecedented challenges and underscores the importance of resilience in customer relations strategies. The research also emphasizes the significance of digital tools and channels in maintaining customer satisfaction and business continuity. By understanding these dynamics, businesses can better prepare for future disruptions, ensuring long-term success in an ever-evolving market landscape ([Bughin et al., 2015](#)).

LITERATURE REVIEW

The Prior Instances

The unanticipated COVID-19 crisis swiftly revolutionized the global business environment to such an extent that traditional practices have become obsolete, forcing many companies to reinvent themselves to navigate new norms in times of uncertainty. As [Stephens \(2021\)](#) underscores, this once-in-a-century emergency has accelerated monumental changes in consumer behavior. These changes are characterized by increased online shopping, elevated use of digital services, and a heightened focus on health and safety regulations.

The COVID-19 pandemic has exposed significant vulnerabilities in global supply chains, highlighting their interdependence and fragility. [Ivanov and Das \(2020\)](#) describe in detail how the disruptions caused by the pandemic led to significant delays, higher operating costs, and widespread inventory shortages, all of which negatively impacted business performance and continuity. Companies that had invested in more diverse and adaptable supply networks were better equipped to handle these disruptions. The ability to respond swiftly to crises ensured more stable operations and helped maintain service levels, supporting overall business performance.

[Hasanat et al. \(2020\)](#) investigated the effects of the COVID-19 pandemic on Malaysia's online retail sector. They noted that because at least half of Malaysia's retail products are sourced from China, COVID-19 poses a significant risk to several e-commerce companies. This finding further underscores the substantial impact on organizational profitability and productivity.

In this unstable environment, it was the businesses' ability to pivot towards new e-commerce solutions and implement contactless deliveries that emerged as key drivers of change, ensuring customer satisfaction amid the turmoil. [Kee et al. \(2022\)](#) and [Yee et al. \(2022\)](#) revealed in their studies the crucial link between customer satisfaction and business success, emphasizing the importance of adaptability in modern business contexts.

According to [Ardyan et al. \(2023\)](#), consumers have specific expectations for the products they purchase, and a product's quality significantly influences whether these expectations are met. If the product meets or exceeds expectations, the customer is satisfied; however, if the product falls short, disappointment is likely. [Wu et al. \(2021\)](#) note that consumers frequently use direct visual and physical cues—such as color, firmness, size, and price—associated with certain products to assess the quality of food.

Furthermore, [Pantano et al. \(2020\)](#) found that the retail sector has undergone a significant transformation in recent years, with a greater emphasis on speed, safety, and product availability online. They recommend that retailers adapt by investing in e-commerce platforms, offering curbside pickup, and ensuring product availability to meet the growing needs of consumers in a constantly evolving world.

As the repercussions of the COVID-19 pandemic continue to reshape the global business landscape, companies must adopt flexibility, customer focus, and innovation to thrive amid the ongoing challenges posed by the crisis. By emphasizing e-commerce readiness, contactless services, health and safety measures, customer knowledge management, punctuality, and personalization, businesses can gain a competitive edge during this transitional period. In a constantly shifting marketplace, addressing customer needs and converting research findings into actionable strategies will enable companies to build lasting relationships with the market, ultimately consolidating their competitive position in an unpredictable environment.

Aftermath of COVID-19 Impact Toward Customer Satisfaction and Business Performance

Perceived Usefulness

[Gan et al. \(2022\)](#) examined the performance of Foodpanda, a food delivery service in Malaysia, during the COVID-19 outbreak and found a significant increase in customer satisfaction due to the quality of their service. This study reinforced the strong link between customer satisfaction and organizational success, highlighting the importance of adapting to changing consumer preferences, such as the rising demand for contactless delivery and the convenience of online ordering. Similarly, [Yee et al. \(2022\)](#) identified four critical factors that influence customer satisfaction in e-business performance during the pandemic: strong customer service, organizational agility, perceived usefulness of offerings, and efficient e-logistics execution. Their findings demonstrated a significant correlation between satisfaction levels and excellent customer service, perceived utility, and seamless e-logistics. This underscores the need for e-commerce businesses to prioritize these areas to meet the growing demand for digital shopping experiences. Based on these insights, the following hypothesis is proposed:

H1: There is a positive relationship between perceived usefulness and business performance in the aftermath of COVID-19.

Perceived Satisfaction

[Miake et al. \(2018\)](#) highlighted the vital role that customer knowledge management (CKM) systems can play in enhancing customer satisfaction and protecting organizations against market volatility and instability. By strategically adopting CKM frameworks, companies can anticipate and respond to the constantly evolving needs of consumers, ensuring that their offerings and experiences are well-adapted to shifting demands.

[Ozuem et al. \(2021\)](#) emphasized the importance of reliability and personalized attention in enhancing customer satisfaction, particularly in the pandemic era when online businesses dominated. The rise in customer expectations necessitated that organizations remain dependable and provide personalized experiences. This focus on reliability and personalization was crucial in building trust and loyalty and reducing the uncertainty and disruption that characterized this period. From this perspective, the following hypothesis is proposed:

H2: There is a negative relationship between perceived satisfaction and business performance in the aftermath of COVID-19.

Perceived Overall Performance

During the COVID-19 pandemic, businesses had to act swiftly to ensure their survival in a rapidly changing environment. [McKinsey & Company \(2020\)](#) found that companies that adopted digital tools early on experienced enhanced performance and resilience during the crisis. Technologies such as cloud computing, digital communication platforms, and e-commerce solutions were successfully implemented to support remote work and online sales channels.

The pandemic has also had a significant negative impact on consumers' emotional and psychological well-being, affecting their satisfaction with businesses. The unprecedented stress, uncertainty, and health concerns have increased the need for emotional support and empathy from companies. [Forrester \(2020\)](#) further supports this by finding that consumers value companies that demonstrate empathy and provide assistance through features like flexible return policies, personalized communications, and proactive problem-solving. This approach helps reduce customer anxiety, fosters connection, and builds trust, increasing the likelihood that customers will remain loyal to companies that prioritize their emotional and psychological needs. Therefore, the next hypothesis is formulated:

H3: There is a positive relationship between perceived overall performance and business performance in the aftermath of COVID-19.

Business Reaction

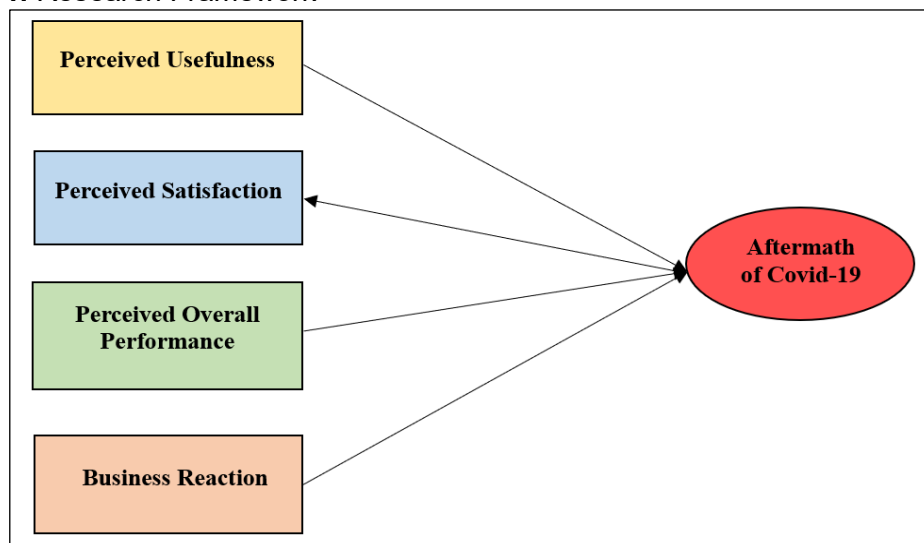
An essential factor influencing customer satisfaction during the COVID-19 pandemic has been how effectively businesses have adapted to new service delivery methods. According to research by [Uzir et al. \(2021\)](#), companies that enhanced their online service quality and ensured timely delivery of products maintained higher levels of customer satisfaction. This adaptation not only addressed concerns for convenience and safety but also met the growing demand for online shopping. Furthermore, businesses that effectively communicated safety measures and changes in their service offerings to their customers fostered a stronger sense of loyalty and trust. This open communication

reassured customers and strengthened their confidence in the business, ultimately leading to better customer relationships during challenging times.

The hospitality industry also felt the pandemic's severe impact. [Jiang and Wen \(2020\)](#) reported a sharp decline in customer satisfaction due to hotel closures, reduced services, and health and safety concerns. However, they suggested that informing customers about stringent hygiene measures, offering contactless services, and being transparent about safety protocols could help regain customer trust and satisfaction. Based on these insights, the final hypothesis is presented:

H4: There is a positive relationship between business reaction and business performance in the aftermath of COVID-19.

Figure 1. Research Framework



[Figure 1](#) illustrates the research framework of this study, outlining the proposed relationships between perceived usefulness, perceived satisfaction, perceived overall performance, and business reaction in the context of post-COVID-19 business performance. This study contributes to the existing literature by providing insights into the critical factors that influence customer satisfaction and business performance in a rapidly evolving digital landscape. The findings are significant for businesses seeking to enhance their customer relationships and adapt effectively to the new normal in a post-pandemic world.

RESEARCH METHOD

Sample and Procedure

This study on the "Impact of the COVID-19 Pandemic on Customer Satisfaction and Business Performance" employs five research methods: quantitative, analytical, descriptive, exploratory, and conclusive research to gather relevant information and data.

For the quantitative research approach, an online survey was conducted via Google Forms, where a questionnaire was distributed to 150 respondents from various backgrounds to collect their opinions about the impact of the COVID-19 pandemic on customer satisfaction and business performance. The survey gathered responses from both customers and entrepreneurs. Google Forms was chosen as the platform due to its

convenience and user-friendliness for both respondents and researchers. Additionally, it allows for efficient collection of a large number of responses within a short period. The online surveys were distributed through social media and targeted personal outreach from April to May 2024. The survey measures are detailed in Appendix 1. To analyze the survey findings, IBM SPSS Statistics 26 was used, which provided comprehensive statistical analyses, including correlation, regression, and coefficient results.

Analytical research was also employed to review various sources of information. This involved analyzing research papers similar in scope to this study's title, "Impact of the COVID-19 Pandemic on Customer Satisfaction and Business Performance." These relevant research papers can be referred to in the References section. Furthermore, descriptive research was applied to describe and highlight the extent to which COVID-19 has affected customer satisfaction and business performance, allowing for a closer examination of the real situation.

Exploratory research was used to generate hypotheses based on the abstract to explore potential conclusions. This stage led to conclusive research, which aimed to find adequate and reliable answers before the actual results were presented.

Measurement

Unless specified otherwise, the survey conducted via Google Forms used a seven-point Likert scale for Part 2, which focused on perceptions of customers and businesses due to the impact of COVID-19. The scale ranged from "1" (Strongly Disagree) to "7" (Strongly Agree), allowing respondents to express varying degrees of agreement or disagreement. The seven-point scale was chosen to capture more nuanced opinions from the 150 respondents, thereby ensuring that slight variations in opinion were accurately reflected in the research.

Part 2 of the survey consisted of five sections, each containing three questions, except for Section A, which had four questions. Sections A and B addressed perceived usefulness and perceived satisfaction experienced by customers due to the impact of COVID-19. Section C focused on perceived overall performance, Section D covered business reactions to the impact of COVID-19, and Section E captured respondents' opinions on whether the aftermath of COVID-19 led to positive or negative changes. In this study, Sections A, B, and C are treated as dependent variables, while Sections D and E are considered independent variables.

For Part 1, "General Opinion," a binary question format was used, providing only two answer options: Yes or No. Part 3, "Demographics of Respondents," gathered background information such as gender, age, ethnicity, nationality, level of education, current faculty, place of learning, occupation, monthly income, and whether respondents identified as consumers or entrepreneurs. This demographic information is crucial for gaining detailed insights from specific respondent groups, ensuring the accuracy and applicability of the research results.

RESULTS

Table 1. Respondent Profile's Summary (N=150)

Characteristics	Frequency	Percentage (%)
Gender		
Female	97	64.7
Male	53	35.3
Age		

15-20 years old	46	30.7
21	1	0.7
21-25 years old	92	61.3
26-30 years old	5	3.3
31-35 years old	5	3.3
56-60 years old	1	0.7
Ethnicity		
Bidayuh	1	0.7
Bumiputera	1	0.7
Bumiputra Sabah	1	0.7
Chinese	29	19.3
Greek	1	0.7
Indian	5	3.3
Indonesian	2	1.3
Javanese	2	1.3
Jawa	1	0.7
Malay	105	70.0
Mixed (Turkish-Malay)	1	0.7
Siamese	1	0.7
Nationality		
Australian	2	1.3
India	1	0.7
Indonesian	5	3.3
Malaysian	142	94.7
Level of Education		
Bachelor's Degree	102	68.0
Degree	1	0.7
Diploma	2	1.3
High School	25	16.7
Master's Degree	5	3.3
Pre-University	15	10.0
Stream/Faculty/Department/School		
School of Management	60	41.0
School of Social Sciences	4	2.7
School of Industrial Technology	2	1.3
School of Education	20	12.2
School of Humanities	4	2.7
Health and Medical Sciences	5	3.4
Communication	2	1.3
School of Languages, Literacies & Translation	3	2.0
College of Computing Informatic & Mathematics	1	0.7
School of Biological Sciences	1	0.7
Pharmacy	4	2.7
Medicine	1	0.7
Mechanical Engineering	4	2.7
Economy	2	1.3
None	37	24.6
Place of Learning		
University Sciences of Malaysia	80	52.9
University of Science, Technology, Humanities and Entrepreneurship	6	4.1

Secondary School	13	8.7
Taylor's University	1	0.7
Polytechnic of Malang	1	0.7
Segi College Subang Jaya	1	0.7
First City University College	1	0.7
Northern University of Malaysia	9	6.0
University of South Australia	3	2.0
INTEC Education College	1	0.7
University of Adelaide	1	0.7
State Polytechnic of Malang	1	0.7
Akademi Laut Malaysia	1	0.7
UIN Maulana Malik Ibrahim Malang	1	0.7
None	30	20.0
Occupation		
Government Workers	6	4.0
Private Sectors	8	5.3
Self-Employed/Freelance	1	0.7
Student	132	88.0
Unemployment	3	2.0
Monthly Income		
Allowance	46	30.7
Below RM1,500	8	5.3
No Income	79	52.7
RM1,501 - RM3,000	9	6.0
RM3,001 - RM5,000	5	3.3
RM5,001 - RM7,000	2	1.3
RM7,001 - RM9,000	1	0.7
Recognized		
Customer	143	95.3
Entrepreneur	7	4.7

According to the demographic data in [Table 1](#), women comprise 64.7% of the sample, while males make up 35.3% of the respondents. The age range of 21 to 25 represents the largest age group of respondents 61.3%, followed by 15.7%. In other age groups, there are notably fewer people. Less than 4% of respondents come from other ethnic groups, such as Indian, Indonesian, and Bidayuh. Malays make up 70% of the respondents' ethnic group, followed by Chinese 19.3%. Most responses 94.7% are from Malaysia, with a small percentage coming from other countries including Australia and Indonesia. With 68% of people holding bachelor's degrees, the bulk of people are highly educated while smaller groups comprise people who have just completed high school and pre-university coursework. The bulk of respondents 41% are from the School of Management, with a notable proportion coming from the School of Education 12.2%, and multiple other faculties. The most well-liked educational institutions are the University of Sciences of Malaysia 52.9% and the University of Science, Technology, Humanities, and Entrepreneurship (24.1%). The bulk of respondents (88%), who are students, describe either receiving an allowance (30.7%) or having no income (52.7%). In summary, 4.7% of people identify as entrepreneurs while 95.3% of people identify as customers.

Table 2. Descriptive Statistic, Cronbach's Coefficients Alpha, and Zero-Order Correlations of All Study Variables

Variables		1	2	3	4	5
1.	Perceived Usefulness	0.748				

2.	Perceived Satisfaction	0.718**	0.879			
3.	Perceived Overall Performance	0.654**	0.697**	0.877		
4.	Business Reaction	0.669**	0.787**	0.596**	0.794	
5.	Aftermath of COVID-19	0.695**	0.631**	0.596**	0.700**	0.738
Mean		5.0700	5.7333	5.3133	5.4578	5.0267
Standard Deviation		1.11432	1.19843	1.29372	1.14076	1.15374

Note: N = 150; *p < .05, **p < .01, ***p < .001. The diagonal entries represent Cronbach's coefficient alpha

As shown in [Table 2](#), the coefficient alpha values for the five variables range from 0.735 to 0.880, indicating strong internal consistency and reliability for all variables. According to [Hair et al. \(2010\)](#), a threshold of 0.7 is the minimum acceptable value for Cronbach's Alpha to ensure reliability in measuring a questionnaire. Reliability serves as an indicator for the variables, ensuring that the tool effectively measures what it is intended to measure. The five variables examined in relation to the impact of the COVID-19 pandemic on customer satisfaction and business performance are perceived usefulness, perceived satisfaction, perceived overall performance, business reaction, and the aftermath of COVID-19 on customers and business owners.

A regression analysis was conducted to test the hypotheses. As shown in [Table 3](#), the independent variables—perceived usefulness, business reaction, perceived satisfaction, and perceived overall performance—were analyzed to determine their effect on the dependent variable, the aftermath of COVID-19. Hypothesis 1 anticipates a positive effect of perceived usefulness on the aftermath of COVID-19, while Hypothesis 4 anticipates a positive effect of business reaction in the aftermath of COVID-19. Hypothesis 2 expects perceived satisfaction to have a negative effect on the aftermath of COVID-19, whereas Hypothesis 3 predicts a positive relationship between perceived overall performance and the aftermath of COVID-19.

Table 3. Regression Analysis

Aftermath of COVID-19		
Variables Entered		Beta
(R ² Change = 0.595)		
1.	Perceived Usefulness	0.361***
2.	Business Reaction	0.416***
3.	Perceived Satisfaction	-0.065
4.	Perceived Overall Performance	0.157*

Note: N = 150; *p < 0.05; **p < 0.01; ***p < 0.001.

[Table 3](#) presents the results of a regression analysis aimed at understanding the factors influencing business performance in the aftermath of COVID-19. The model explains 59.5% of the variance ($R^2 = 0.595$) in business outcomes, indicating that the included variables collectively have a substantial impact. Among the variables, business reaction emerges as the most significant predictor, with a beta coefficient of 0.416 ($p < 0.001$). This suggests that businesses that responded effectively to the challenges posed by the pandemic saw significant improvements in their performance. Similarly, perceived usefulness is also a strong and significant predictor ($\beta = 0.361$, $p < 0.001$), implying that as businesses or their offerings are perceived as more useful, their performance in the post-pandemic context improves correspondingly. Perceived overall performance has a positive and statistically significant relationship with business outcomes ($\beta = 0.157$, $p < 0.05$), indicating that businesses that were generally perceived to perform well during the pandemic had better outcomes. However, perceived satisfaction does not have a

significant impact on business performance, as indicated by its negative beta coefficient of -0.065 and a p-value above 0.05. This suggests that satisfaction alone did not drive significant changes in business performance during the pandemic, highlighting the greater importance of perceived usefulness, business reaction, and overall performance in this context.

Figure 2. Hypothesized Model

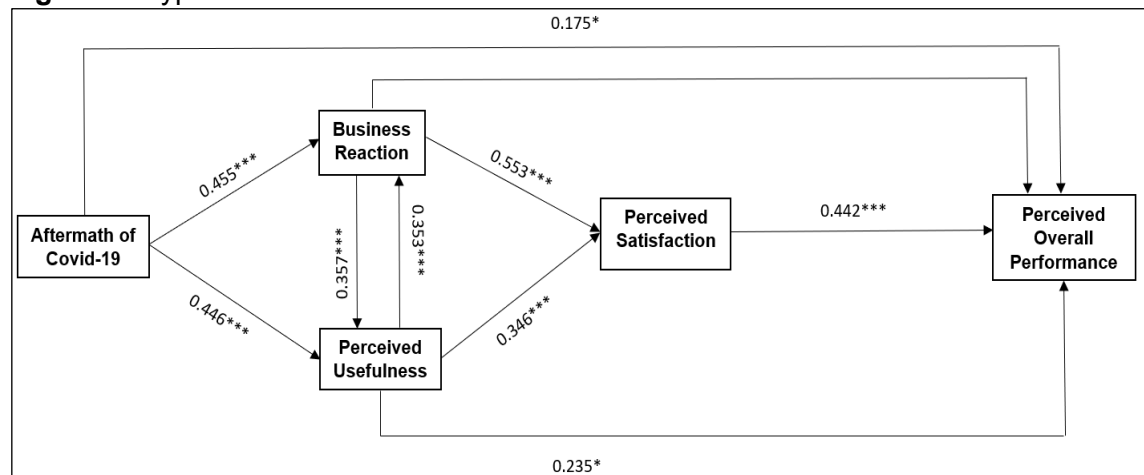


Figure 2 presents a hypothesized model that illustrates the relationships between the aftermath of COVID-19, business reaction, perceived usefulness, perceived satisfaction, and perceived overall performance. The model supports the findings from **Table 3** by demonstrating how these variables interact to influence business outcomes during the pandemic.

In the model, business reaction and perceived usefulness emerge as critical mediators between the aftermath of COVID-19 and perceived satisfaction, as well as overall performance. Specifically, the paths from the "Aftermath of COVID-19" to "Business Reaction" (0.455***) and "Perceived Usefulness" (0.446***) highlight the direct impact of the pandemic on these factors. Both "Business Reaction" and "Perceived Usefulness" significantly influence perceived satisfaction (0.553*** and 0.346***, respectively), which in turn strongly predicts perceived overall performance (0.442***). Additionally, business reaction directly contributes to perceived overall performance (0.357***), underscoring its importance as indicated in the regression analysis.

The model also reveals that perceived usefulness positively influences business reaction (0.357***), reinforcing the interconnectedness of these variables. The direct path from the aftermath of COVID-19 to perceived overall performance (0.175*) and the influence of these mediators indicate that while the pandemic had a significant impact, the effectiveness of business reactions and the perceived usefulness of adjustments made by businesses played pivotal roles in shaping customer satisfaction and overall business performance.

In summary, **Figure 2** visually supports the statistical findings presented in **Table 3**, illustrating that business reaction and perceived usefulness are key drivers in determining the aftermath of COVID-19 on customer satisfaction and overall performance. The model underscores the importance of strategic responses to the pandemic in maintaining and improving business outcomes during crises.

DISCUSSION

The COVID-19 outbreak has had a profound impact on customer satisfaction and organizational outcomes, compelling businesses to adapt proactively to shifting consumer demands. The findings from this study align with this broader narrative, highlighting the crucial roles of perceived usefulness, business reaction, and perceived overall performance in shaping customer satisfaction and business performance during the pandemic.

Customer needs, emotions, service, and product features are critical antecedents of customer satisfaction, as noted by [Pérez-Morón et al. \(2022\)](#). During the pandemic, customers increasingly expected seamless digital experiences, timely updates on health measures, and flexible return policies. The study's findings demonstrate that perceived usefulness and business reaction have significant positive effects on business performance (both with p-values below 0.001), supporting Hypotheses 1 and 4. This underscores that businesses that effectively integrated these customer expectations into their strategies not only observed increased customer satisfaction and brand loyalty but also enhanced their overall performance. These strategies were essential for maintaining customer trust and satisfaction amidst the uncertainty caused by the pandemic.

The pandemic disrupted daily operations, limited investments, and reduced revenue for many firms, particularly in economies like Malaysia ([EY, 2020](#)). Small businesses were especially vulnerable, facing closures and layoffs shortly after the crisis began, revealing their financial fragility and contributing to reduced employment rates ([Bartik et al., 2020](#)). However, businesses that implemented digital transformation and customer-centric strategies demonstrated greater resilience during these challenging times ([Klein & Todesco, 2021](#)). The study's findings reveal that perceived overall performance, with a p-value of 0.045, significantly influenced business performance, supporting Hypothesis 3. This indicates that a strong business response to the pandemic could mitigate its negative impacts on performance, emphasizing the importance of adaptability and strategic planning in crisis situations.

The shift towards digitalization during lockdowns resulted in a significant increase in online sales and e-commerce's share of global retail trade ([UN Trade & Development \[UNCTAD\], 2021](#)). For example, in Indonesia, online sales surged dramatically during the early months of the pandemic ([Hidayat & Azzery, 2022](#)), highlighting the importance of digital platforms in meeting evolving consumer expectations. Despite these adaptations, the data reveals that perceived satisfaction did not have a significant impact on business performance (p-value of 0.519), indicating that Hypothesis 2 was not supported. This finding suggests that while businesses made significant strides in improving digital interactions, customer satisfaction alone may not fully account for the complexities of customer loyalty and business performance in the pandemic's aftermath.

Customer-centricity and knowledge management (CKM) are crucial for businesses aiming to enhance customer satisfaction and navigate market uncertainties ([Wills, 2024](#)). The study highlights that perceived usefulness and business reaction were the most influential variables in the context of the pandemic, aligning with CKM's role in ensuring that businesses effectively meet shifting customer demands. Companies that employed CKM systems to provide personalized interactions and empathetic communication were better positioned to maintain and even increase customer trust and loyalty during the crisis.

Moreover, companies with diversified and flexible supply networks were better prepared to manage disruptions and adapt to changing conditions, as suggested by [Betz \(2023\)](#).

The study's regression analysis ($R^2 = 0.595$) in [Table 3](#) reinforces the importance of resilience and agility in supply chains for sustaining business performance during the pandemic. Supporting these findings, research by [Sinha et al. \(2021\)](#) on Starbucks reveals the challenges the company faced, including supply chain disruptions, economic pressures, and shifts in consumer behavior. The positive relationships identified between business reaction and perceived overall performance further emphasize the need for businesses to develop robust supply chains capable of withstanding and adapting to unexpected changes.

Despite these efforts, businesses still face challenges in fully meeting evolving customer expectations, particularly in areas such as convenience, safety, and contactless interactions. The findings suggest that while customer satisfaction generally improved, perceived satisfaction remains a complex variable that does not entirely align with business performance in the pandemic's aftermath. This indicates that companies must continue to refine their strategies, ensuring that health-related information is transparently disclosed, return policies are simplified, and digital interactions are optimized to meet new customer expectations ([Eric & Ludvik, 2021](#)).

Overall, the research confirms that perceived usefulness, business reaction, and perceived overall performance are significant factors influencing customer satisfaction and business performance in the aftermath of COVID-19. These findings underscore the importance of adaptive strategies in sustaining growth and building lasting consumer relationships as the pandemic continues to reshape business environments ([Williams & Naumann, 2011](#)).

CONCLUSION

The COVID-19 pandemic significantly disrupted global business environments, forcing organizations to swiftly adapt their operational strategies to meet evolving customer needs and expectations. This study specifically examined the impact of the pandemic on customer satisfaction and business performance in Malaysia, revealing key insights into the factors that have helped businesses navigate these challenges. The findings highlight that perceived usefulness and business reaction were highly significant in influencing customer satisfaction and business performance (both with p -values < 0.001). Moreover, perceived overall performance also played a significant role ($p = 0.045$), underscoring the importance of effective operational adjustments and strategic responses during crises.

However, the study found that perceived satisfaction was not a significant predictor of business performance ($p = 0.519$). This suggests that while businesses may have successfully adapted their operations to be more useful and responsive during the pandemic, these changes did not necessarily lead to higher levels of customer satisfaction. This finding challenges the conventional wisdom that satisfaction directly correlates with performance, particularly in a crisis context. The model used in this study explains 59.5% of the variance in the impact of the pandemic, indicating that the key factors identified—perceived usefulness, business reaction, and overall performance—are crucial for understanding how businesses can effectively navigate such unprecedented challenges.

Given the findings, it is imperative for businesses to focus on agility and customer-centric strategies to navigate ongoing and future disruptions. Companies should continue to enhance their perceived usefulness by integrating digital solutions that meet customer needs and expectations in real time. Furthermore, business reactions must be swift and

strategic, ensuring that operational adjustments are not only responsive to immediate crises but also contribute to long-term performance and resilience.

The study also suggests that while perceived satisfaction did not significantly impact performance, businesses should not disregard it altogether. Instead, companies should explore more nuanced approaches to customer satisfaction that go beyond traditional measures, possibly incorporating elements of emotional engagement and long-term loyalty into their strategies.

For policymakers and industry leaders, the study underscores the importance of supporting businesses, especially SMEs, in adopting digital transformation and customer-centric approaches. By providing the necessary resources, training, and infrastructure, governments can help businesses better prepare for future disruptions.

In conclusion, businesses that proactively adapt their operations to enhance perceived usefulness, respond effectively to crises, and maintain overall performance are better positioned to survive and thrive in uncertain environments. As market conditions continue to evolve, companies must remain agile and customer-focused, continuously refining their strategies to meet the changing needs of consumers in a post-pandemic world.

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DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interest.

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