
FACTORS AFFECTING HOSPITAL BUSINESS CONTINUITY IN INDONESIA DURING THE COVID-19 PANDEMIC: A SCOPING REVIEW

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Received: 04-11-2022

Accepted: 17-12-2022

Published: 19-12-2022

ABSTRACT

Introduction: The COVID-19 pandemic has created various challenges and problems for healthcare facilities around the world. This problem also occurs in Indonesia, a country with a high rate of transmission and death of COVID-19. Hospitals, both as health facilities and businesses, must determine the necessary strategies to ensure their business continuity during the Pandemic. Therefore, the factors that affect the continuity of the hospital's business must be determined before making a strategy. The purpose of this study was to identify and analyze the factors affecting the continuity of a hospital's business during a pandemic. **Method:** A scoping review was done using PRISMA-ScR guidelines and population, concept, context (PCC) framework. Studies from Pubmed, Google Scholar, and Portal Garuda were collected and analyzed. **Results:** Among 326 articles found, five studies were included and analyzed. Each study examined the impact of COVID-19 on various aspects of the hospital, both as a business and as a healthcare facility. Moreover, some studies also proposed solutions to minimize the impact of disruptions due to COVID-19. Changes and innovations in facing biological, financial, and resource management problems are essential for hospitals in Indonesia to maintain business continuity during the COVID-19 Pandemic. **Conclusions:** COVID-19 Pandemic brought significant challenges for hospitals around the world. Factors affecting hospital business continuation in Indonesia appear in biological, financial, and resource management problems.

Keywords: Business Continuity, COVID-19, Hospital Management, Indonesia.

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INTRODUCTION

The COVID-19 Pandemic is an extraordinary situation changing fundamental aspects of life, especially health services. Based on previous research conducted in America, there will be a shortage of 9,000 regular beds and 9,000 Intensive Care Unit (ICU) beds due to the COVID-19 Pandemic (COVID & Murray, 2020). Meanwhile, it was estimated that hospitals in Indonesia would be overrun by patients suffering from financial problems and staff shortages (Herlina, 2021). However, this is also accompanied by a significant reduction in the number of patients in other sectors, such as polyclinics, inflicting serious economic damage to the healthcare industry (COVID & Murray, 2020).

With rapid fluctuations in the number of patients and income, a significant danger is imposed on the hospital's sustainability as a form of business (ELSukkary & Youssef, 2021) (Mahubessy & Darmawan, 2022). Rapid decrease in patient numbers, increasing costs due to the addition of

infrastructure and operational standards following COVID-19, and financial difficulties are things that hospitals must face during the COVID-19 Pandemic (Khullar et al., 2020).

Hospitals in Indonesia also feel these phenomena. Based on a previous publication, hospitals in Indonesia would experience four enormous “waves” of COVID-19-related problems. These four waves were 1) a rapid increase in patients and death, 2) financial crisis, 3) staff shortage and burnout, and 4) increased morbidity and mortality due to delayed healthcare services (Herlina, 2021).

Two years following the initiation of the pandemic status, various advancements had been made to cope with the situation. The “infection curve” had also been flattening due to various restrictions imposed on the population. However, the damage had been done. There was a significant impact on the financial and healthcare industry, forcing various hospitals to default or close (Pragholapati, 2020). The “new normal” status has also brought many changes to the healthcare industry (Pragholapati, 2020).

Therefore, an innovative change in strategy and management is needed during the COVID-19 Pandemic. Challenges far from usual encourage healthcare facilities to adapt to current conditions, such as humanitarian facilities and businesses (Adelaja et al., 2020). Unfortunately, there has yet to be a comprehensive study on the factors affecting hospital business continuity in Indonesia during the COVID-19 Pandemic. This study examines the factors affecting hospital business continuity in Indonesia during the COVID-19 Pandemic.

METHOD

This research is a scoping review based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) (Suhartini, 2022). Guidelines in March – May 2022 to determine the factors affecting hospital business continuity in Indonesia during the COVID-19 Pandemic.

This research used the population, concept, and context (PCC) framework recommended by the Joanna Briggs Institute for Scoping Review. The PCC framework for this study can be observed in Table 1.

Table 1. PCC Framework of the Study.

Population
Hospitals
Concept
Business continuity
Business Survival
Context
Hospital setting Indonesia
Published during the COVID-19 Pandemic

The study eligibility criteria in this study were: 1) an original research study, a review, or a case study in a hospital, 2) not a correspondence study or a policy brief, 3) Focusing on the hospitals in Indonesia, 4) Published since the COVID-19 Pandemic announced (November 2019), 5) Written in English or Indonesian, 6) can be accessed in full (full text), and 7) there is no duplication of studies between databases. The study search in this research was conducted on three online databases: Pubmed, Google Scholar, and Garuda Portal.

RESULTS AND DISCUSSION

During the initial literature search, 366 kinds of literature were obtained. After the duplicate screening, a total of 326 types of literature were obtained. After thoroughly screening the articles' titles and abstracts, a total of 320 articles were excluded. Of these, 317 were excluded due to being irrelevant to the topics. In comparison, three themes were excluded due to the wrong location. Afterward, a total of 6 studies were identified and analyzed. However, a full text of a thesis article was not available. Therefore, five studies were included and analyzed in this study.

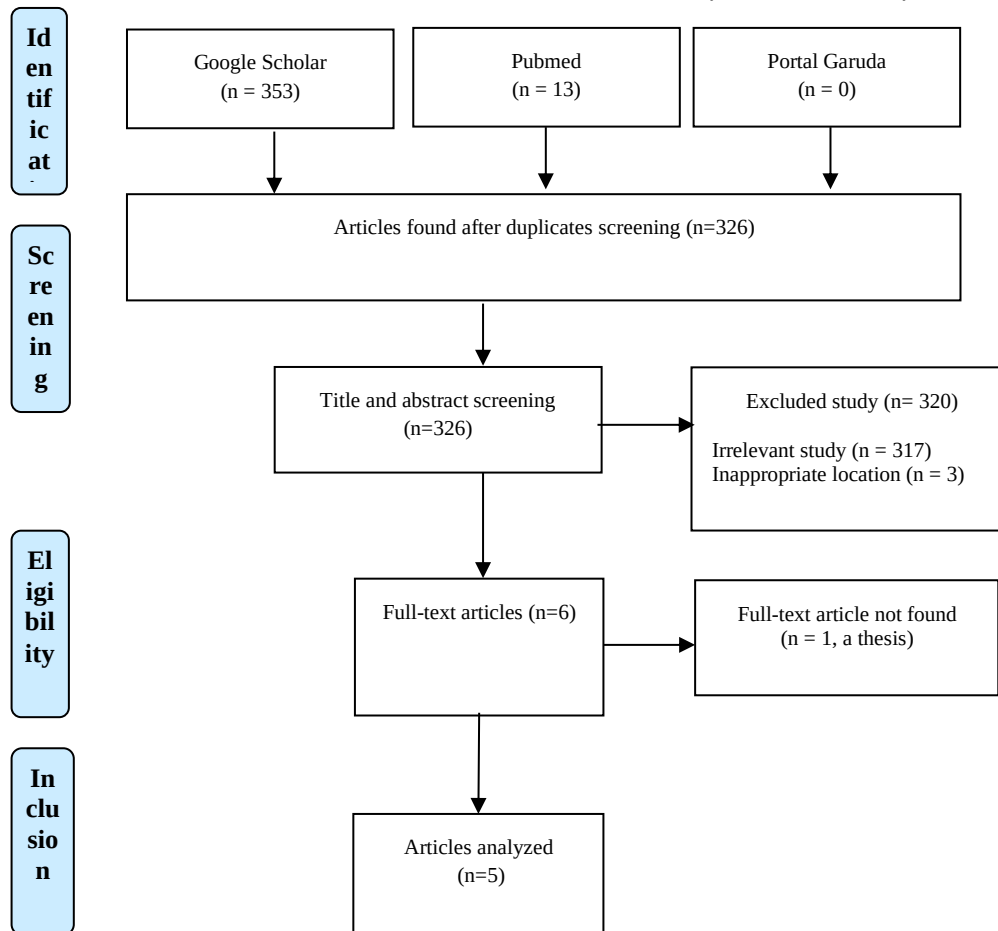


Figure 1. Study Selection with Prisma ScR diagram

Studies Characteristics

Among five articles analyzed and synthesized, two systematic reviews, one literature review, one case report, and one cross-sectional study were obtained. One review analyzed the strategic planning of hospitals in dealing with the pandemic situation. Two reviews analyzed the financial aspect of hospitals during a pandemic crisis. The case report explained the preparedness of an orthopedic hospital for the approaching COVID-19 Pandemic. The cross-sectional study analyzed customer loyalty to medical checkup clinics in a hospital.

Studies Search Results

The results of the articles search were categorized and tabulated. The results can be found in Table 2.

Table 2. Literature Search Results

Author	Title	Aim	Study design	Results
(Master, 2020)	Applying Generic Strategy in Creating Customer Loyalty in The Middle of Virus Covid-19 Pandemic in Polyclinic MCU XYZ Cardiovascular Hospital	Top determine the factors affecting customer loyalty in medical checkup clinics during the COVID-19 Pandemic.	Cross-sectional using questionnaires	1. Customer loyalty is one of the determining factors in the number of visiting patients to the police in hospitals. 2. Factors affecting customer loyalty to hospitals during the COVID-19 Pandemic were hospital differentiation, cost leadership strategy, and a focus strategy implementation. 3. Cost leadership includes delivering the most efficient care with minimal patient cost. 4. Hospital differentiation strategy includes a decision to wrap the products, quality, or brand differently from other competitors.
(Jatnika et al., 2021)	Strategy For Anticipating the Hospital's Financial Condition During The COVID-19 Pandemic	To determine the strategies for anticipating the hospital's financial condition during the COVID-19 Pandemic.	Systematic review	1. Hospitals have many challenges in surviving the COVID-19 Pandemic, including financial challenges. 2. Various strategies have been proven to repair and regenerate the hospital system while restoring the hospitals' financial stability. 3. The strategies used were leadership style change, social media strategy, funding allocation system, income rejuvenation, restructuring the emergency department, and following the health policy. 4. The funding allocation system was further categorized into the postponement of irrelevant medical devices investment, delays in unprioritized infrastructure repairs, postponement of non-mainly maintenance, renegotiation of loans and payments, reducing interest rates, not conducting CME, and not recruiting additional personnel. 5. Income rejuvenation may be done by reducing hospital operating costs, reviewing the strategic business plan, implementing health service innovations, modifying hospital behavior, and shortening hospitalizations.
(Fransisren, 2021)	Systematic Review: Hospital Strategic	To evaluate the strategic business plan of the	Systematic review	1. The COVID-19 Pandemic is a VUCA (volatile, uncertain, complex, and ambiguous) situation requiring special management.

	Planning in hospitals VUCA (Volatile, Uncertain, Complex, Ambiguous) Corona Virus Disease 2019 (COVID-19) Pandemic Era	during the COVID-19 Pandemic.		- Utilizing available resources (material, men, method, money, and machine) is the main strategy in facing COVID-19 Pandemic. - Hospitals must fulfill the 4S (space, staff, system, and supplies) to survive the Pandemic. - Space parameter includes the capacity to deliver the standard treatment using available resources. - Staff parameter includes the availability of competent staff and the fulfillment of their rights. - System parameter includes the management system of COVID-19 and non-COVID patients. - The supplied parameter includes the fulfillment of required materials to deliver standard care for the patients.
(Yusri, 2021)	Tinjauan Atas Peningkatan Pendapatan Rumah Sakit Dalam Optimalisasi Layanan Kesehatan Ditengah Pandemi COVID-19	To show an overview of strategies needed for hospitals to survive the COVID-19 Pandemic.	Literature review	- There has been a significant drop in hospitals' income during the COVID-19 Pandemic, with as low as a 50% decrease in a hospital in Pontianak. - Strategies to be implemented during the COVID-19 Pandemic include fulfilling good services and delivering healthcare innovations. - Good healthcare services need to be identified for each hospital. - Healthcare innovations include telemedicine and social media utilization.
(Utomo et al., 2022)	Emergency Department Preparedness of Prof. Dr. R. Soeharso Orthopaedic Hospital against Coronavirus Disease-19 Pandemic: Understanding the Challenges	To explain the challenges and preparations done in the orthopedic emergency department during the COVID-19 Pandemic.	Case report	- Strategies used to anticipate the COVID-19 Pandemic in the emergency department were health standard protocol and PPE, triage management in ED, prehospital screening triage, management of resuscitation, management of staff health care, and emergency surgery management. - Health standard protocol and PPE were defined and upheld for each emergency department staff. - Triage management during the COVID-19 Pandemic was categorized into prehospital and hospital triage. - Resuscitations in emergency departments were held in isolation-type resuscitation areas with negatively pressurized rooms with HEPA filters.

5. Patients undergoing emergency surgery would be carefully selected.

Throughout the study, a total of 5 articles were included and analyzed. Due to the limitations of the pandemic situation, three of the studies were either literature reviews or systematic reviews. Meanwhile, one study was a case report, and the other was a survey. Most of the studies pointed out managerial strategies as a solution to the indeterminate situation of the COVID-19 Pandemic. Moreover, the studies pointed out the financial problem as the most impactful factor of a hospital's business continuity (Mastari & Astari, 2020) (Fransisren, 2021).

The COVID-19 Pandemic brought extraordinary circumstances surrounding every aspect of hospital management, both as a healthcare facility and a business. Fransisren et al. (2021) defined the situation as VUCA (volatile, uncertain, complex, ambiguous), derived from a critical condition in strategic leadership which was first introduced by (Pandit, 2020). The dangers of COVID-19 could be categorized into biological, financial, and resource management problems.

The aerosol transmission of COVID-19 carried significant implications for protocols and infrastructures in hospitals. Inhalation of air bringing very small fine droplets and aerosol particles containing the SARS-CoV-2 virus highly contributes to the rapid spread of COVID-19 (Stadnytskyi et al., 2020). The provision of standard protections for medical personnel, non-medical staff, and patients is essential to reduce virus transmission (Utomo et al., 2022). Moreover, additional infrastructures such as HVAC (heating, ventilation, and air conditioning) systems should be modified to comply with the health standard. These problems would also bring a heavy financial burden to the hospitals during a pandemic.

The rapid decrease in police patients and surge of emergency patients tremendously change the income stream for each unit in a hospital. Due to the fear of contracting COVID-19, most patients would hesitate and delay their routine medical appointment. Moreover, they would also choose nearer and more trusted hospitals. Regarding the conditions, customer loyalty is essential in determining the continuation of the hospital business. (Mastari & Astari, 2020) Wrote that customer loyalty is affected by hospital differentiation, cost leadership, and focus strategy implementation. For instance, pregnant patients would rather take their routine antenatal care in maternal and child hospitals, as it would lower their chance of being in the same room as COVID-19 patients.

The previous study (Yusri, 2021) showed that hospitals were faced with significant drops in income during the COVID-19 Pandemic, even as low as a 50% decrease. Therefore, critical changes must be implemented during the COVID-19 Pandemic, including (Jatnika et al., 2021) :

1. Identification and fulfillment of profitable services
2. Innovations in health services, including the use of telemedicine and social media utilization.
3. Reducing hospital costs and modifying hospital behavior.

Resource management problems also brought a significant challenge for hospitals worldwide. In contrast to the decrease of the patient in polyclinics, the emergency department would experience a sudden surge of patients during the COVID-19 Pandemic. The sudden increase in patient numbers would significantly burden the medical staff and infrastructures. Exhausted medical teams are more prone to contracting COVID-19, exacerbating the deficiency of staff further and creating an unending loop. Therefore, control of the patient number and staff protection is essential in the emergency department (Utomo et al., 2022). Medical staff security can be ensured by providing standard PPE,

applying standard health protocol, and carefully selecting patients eligible for emergency services and surgeries (Utomo et al., 2022).

CONCLUSION

The COVID-19 Pandemic brought significant challenges for hospitals around the world. Factors affecting hospital business continuation in Indonesia appear in biological, financial, and resource management problems. Changes and innovations to each situation would be necessary to ensure the business's continuation.

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