p-ISSN 2962-6668

HOTELS AND RESTAURANTS SUSTAINABILITY: EVIDENCE FROM TOURISM INDUSTRY IN INDONESIA

Ni Luh Putu Uttari Premananda
Universitas Hindu Negeri I Gusti Bagus Sugriwa Denpasar
nanda@uhnsugriwa.ac.id

Abstract

This study examines the level of sustainability in Indonesian hotels and restaurants within the tourism industry. Despite an increasing trend in tourist arrivals, hotel and restaurant companies have experienced a decreasing revenue, leading to concerns about potential bankruptcy. To address this issue, the study utilized secondary data from the annual reports of 13 listed hotels registered in the Indonesian Stock Exchange (BEI) over a period of five years (2016-2020). Altman's Z-score model, known for its accuracy and reliability in forecasting firm sustainability through ratio analysis, was employed. Results indicate that 61,5% of the hotels and restaurants are in the safe zone, 26,2% in the grey zone, and 12,3% in the distress zone. These findings are significant as they provide empirical evidence of a worrisome financial environment in the Indonesian tourism industry, raising doubts about the hotels' going concern.

Keywords: *Sustainability, Altman Z score, Hotels, Restaurants, Tourism*

Introduction

Bankruptcy risk prediction is an important aspect of financial management in various industries worldwide, including the hospitality and tourism industry. The Altman Z-score model has been widely used as a reliable and accurate method to predict bankruptcy risks, and it has also been applied in many countries, including Indonesia (Diakomihalis, 2012). However, limited research has been conducted on the financial health of hotels in Indonesia's tourism industry and how to predict bankruptcy risks accurately. In addition, research on how hotels can enhance their financial performance and maintain business continuity during a pandemic, such as the COVID-19 pandemic, is lacking.

The gap in knowledge regarding the financial health of hotels in Indonesia's tourism industry and how to predict bankruptcy risks accurately needs to be addressed as it can have significant implications for sustaining economic stability in Indonesia. The COVID-19 pandemic has further highlighted the importance of addressing this gap, as it has brought about significant changes and challenges, particularly in the economic sector (Wang et al., 2020). The decline in sales due to the pandemic has resulted in negative cash flow, triggering inefficiency and eventually leading to bankruptcy (Altig et al., 2020; Didier et al., 2021; Hunter & Shannon, 2020; Iverson et al., 2011; Usheva & Vagner, 2021).

This research aims to investigate the financial health of hotels operating within Indonesia's tourism industry and to use the Altman Z-score model to predict bankruptcy risks accurately. The study will also explore the factors contributing to the sustainability of hotels and develop strategies to enhance financial performance

p-ISSN 2962-6668

and maintain business continuity during a pandemic. By doing so, this research will contribute to the existing body of knowledge and provide valuable insights for hotel owners, investors, and policymakers.

The significance of the study lies in its contribution to maintaining economic stability in Indonesia, where generating income is a primary goal. The study will provide valuable insights into the factors contributing to the sustainability of hotels in Indonesia's tourism industry and aid in the development of strategies to enhance financial performance and maintain business continuity. Overall, this research will provide important information for stakeholders in the hospitality and tourism industry, allowing them to make informed decisions about the financial health of hotels in Indonesia.

Literature Review

1. Business Sustainability

The sustainability of a business is a measure of its financial security, which is closely linked to the management's ability to run the company smoothly and continuously. Consequently, it becomes crucial for investors and stakeholders to assess the sustainability of a company. Several factors can disrupt a company's sustainability, including:

1. Negative trends such as repeated operational losses, insufficient working capital, negative cash flows, and significant financial ratios
2. Other indications of financial distress include failure to meet debt obligations, delayed dividend payments, denial of credit sales by suppliers, debt restructuring, the need for alternative financing methods, or the sale of assets.
3. Internal issues, such as strikes by employees or poor labor relations, dependence on the success of projects, long-term commitments that do not add economic value, and significant operational improvements, may also pose a threat to a company's sustainability.
4. External problems may include lawsuits, regulations or laws that are burdensome, loss of patents, licenses, or franchises, loss of key customers or suppliers, and significant losses due to a natural disaster (McKeown et al., 1991).

The factors leading to the bankruptcy of a company can be classified into internal and external.

Internally, inefficient management resulting in repeated losses and difficulties in meeting obligations due to cost overruns and inadequate management skills can cause financial distress (Fauzia, 2017; Putri et al., 2018). Additionally, an imbalanced capital structure can lead to high levels of debt and interest expenses, which can erode a company's earnings or even cause losses. Moral hazard by management in the form of fraud or misleading financial reports can also lead to bankruptcy.

Externally, changes in customer needs and wants, supply chain disruptions, debtor defaults, poor creditor relations, intense competition from other firms, and global economic conditions such as the COVID-19 pandemic can all contribute to the bankruptcy of a company.

2. Altman Z-score Model

The concept of going concern is a crucial element in the preparation of financial statements, and it plays a significant role in the accounting framework.

p-ISSN 2962-6668

Many studies have been conducted on measuring the going concern of a company using the Altman Z-score model, which is a popular tool for predicting bankruptcy. Some studies have used other methods like the X-score, S-score, and G-score. These studies have demonstrated that the Altman Z-score model is a reliable tool for predicting corporate insolvency. The tourism industry has been hit hard by the COVID-19 pandemic, particularly hotels, restaurants, and travel companies. Some studies have analyzed the financial distress of companies before and during the pandemic, with negative impacts found on the hotel, restaurant, and tourism subsectors in Indonesia. Other studies have used the Z-score model to measure the fundamental financial health of various industries, such as the tannery industry in Bangladesh and the trading industry in Sri Lanka. The findings of these studies can guide investing decisions and help businesses in financial crisis take urgent action to preserve their operations in the future.

Furthermore, the use of the Altman Z-score model has proven to be reliable in predicting the financial health of companies across various industries. In one study, Mahbuba (2015) used the model to evaluate the financial health of listed tannery companies in Bangladesh and found that only two out of the companies were in good financial health. This study highlights the usefulness of the Altman Z-score model in guiding financial decisions for investors and managers in various industries.

Another study by Niresh and Pratheepan (2015) analyzed the likelihood of failure among trading companies in Sri Lanka using Altman's bankruptcy model. The study reviewed financial reports from seven trading companies over a five-year period and found that 71% of enterprises in the sector were experiencing financial difficulties, while the remaining 29% were in the gray zone.

The tourism industry has also been severely impacted by the COVID-19 pandemic, with hotels, restaurants, and travel companies being among the sectors most affected. A study by Rahmah and Novianty (2021) analyzed the financial distress of companies in the hotel, restaurant, and tourism subsectors in Indonesia before and during the pandemic using the Altman Z-score model. The study found a negative impact on these industries during the pandemic, which could guide investment decisions and help businesses take urgent action to preserve their operations in the future.

In conclusion, the Altman Z-score model has become a crucial tool for measuring the financial health of companies across various industries. Its reliability in predicting corporate insolvency has been demonstrated in many studies, including those focused on the tourism, trading, and tannery industries. The model's ability to guide investment decisions and help businesses take action to avoid risks related to insolvency has made it a valuable tool for investors and managers alike.

Research Methodology

The present study has adopted a quantitative approach to evaluate the sustainability level of hotels listed on the Indonesian Stock Exchange (BEI) by relying on secondary data extracted from their annual reports. The sample for this study comprised 13 companies, representing a subset of the 25 companies listed within the hotel, restaurant, and tourism sub-sectors in 2021. The analysis was restricted to only those companies for which annual reports were available for the period of interest (2016-2020). The choice of this time frame was motivated by the need to capture the financial impact of the COVID-19 pandemic, which had a significant effect on the tourism industry worldwide.

The study utilized modified Altman's Z-score model to analyze the sustainability level of hotel, restaurant, and tourism sub-sectors in Indonesia. This modified Z-score model is utilized to assess the financial health of non-manufacturing companies, which is an appropriate framework for evaluating the business continuity of companies operating within the hotel, restaurant, and tourism sub-sectors. The research provides a concise overview of the Altman's Original Z-Score Model (Altman, 1968), which is composed of five financial ratios.

$Z = 6{,}56X1 + 3{,}26X2 + 6{,}72X3 + 1{,}05X4$

X1= Working capital to total assets

X2= Retained Earnings to total assets

X3= Earnings before interest and taxes to total aset

X4= book value of equity to book value of liability

Based on the analysis of the modified Z-score model above, the Z-score values obtained can be classified into three (3) categories, namely:

1. Z' > 2.9, classified as healthy companies
2. Z-score values between 1.23 and 2.90, classified as companies in the grey area
3. Z-score values below 1.21, classified as companies at risk of bankruptcy.

These classifications are determined based on the Z-score cut-off points and provide a clear indication of the financial health of the companies under consideration. Companies with Z-scores greater than 2.9 are considered financially stable and healthy, while those with Z-scores below 1.21 are deemed to be at high risk of bankruptcy. Companies with Z-scores in the grey area require further investigation to determine their financial health status. The use of these Z-score categories is a well-established approach in financial analysis, and provides a practical framework for assessing the financial health of companies operating within the hotel, restaurant, and tourism sub-sectors.

Results and Discussion

Figure 1 provides a graphical representation of the overall sustainability status of Indonesian hotels and restaurants, based on their average yearly Z value. The Z value is a measurement of financial distress, and a higher Z value indicates that a company is in a better financial position. In 2016, hotels and restaurants operated in the safe zone, with a Z value of 3,14. This suggests that the Indonesian hospitality industry was in a relatively stable financial condition.

However, the research observed a significant increase in 2017, with a Z value of 3,99, and as a result, the Indonesian hotels and restaurants remained to the safe zone. Between 2018 and 2019, there was a growth in the hotel industry, as the Z value trend displayed an increase. Nonetheless, from 2019, there was a consecutive decline in Z value, leading the hotels and restaurants towards a grey zone. This trend suggests that the Indonesian hospitality industry is facing financial

p-ISSN 2962-6668

distress, and without positive interventions from both the government and management, the hotels may face stagnation or even collapse.

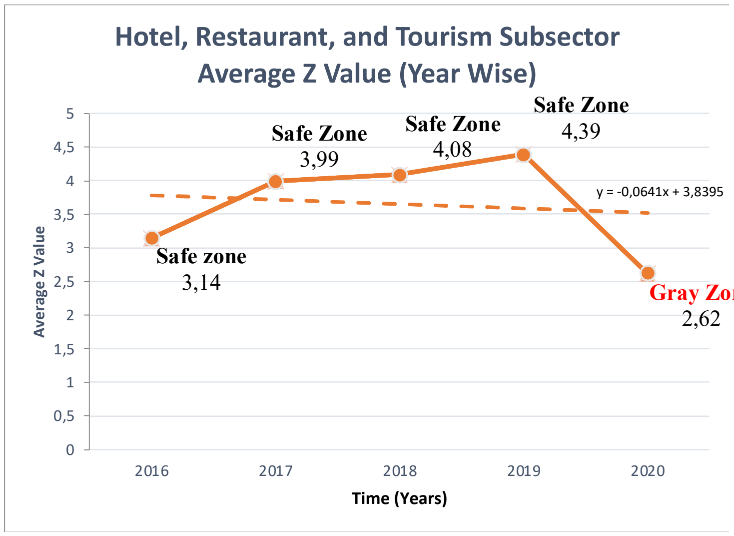

Figure 1: Overall Sustainability of Hotels
[Source: Survey Data]

The results of the annual analysis of the hotel, restaurant, and tourism subsector companies listed on the Indonesia Stock Exchange (BEI) provide an in-depth understanding of the financial conditions of the companies. The analysis conducted from 2016 to 2020 shows that there is a decreasing trend in the number of healthy companies, while the number of companies in the grey zone and at risk of bankruptcy is increasing.

In 2016, an examination of the hotel, restaurant, and tourism subsector companies listed on the Indonesia Stock Exchange (BEI) was carried out, with a total of 13 companies included in the analysis. The results showed that 7 companies (54%) were deemed to be healthy, 4 companies (31%) were in the grey zone, and 2 companies (15%) were at risk of bankruptcy. The seven companies that fell into the healthy category were ARTA, BAYU, FAST, JGLE, JSPT, KPIG, and PNSE, while ICON, PJAA, PTSP, and SHID were in the grey zone category, and HOTL and PSKT were in the risk of bankruptcy category.

Subsequent annual analyses of the same subsector and listed companies were conducted in 2017, 2018, 2019, and 2020. In 2017, 10 out of 13 companies (77%) were classified as healthy, with 2 companies (15%) in the grey zone and only 1 company (8%) at risk of bankruptcy. The healthy category included ARTA, BAYU, FAST, ICON, JGLE, JPST, KPIG, PJAA, PNSE, and PSKT. In the grey zone category were PTSP and SHID, while HOTL was the only company at risk of bankruptcy.

The trend of decreasing healthy companies continued in 2018 and 2019. In 2018 and 2019, 9 out of 13 companies (69%) were classified as healthy, with 4 companies (31%) in the grey zone, and none at risk of bankruptcy. In 2018, the healthy category included ARTA, BAYU, FAST, ICON, JGLE, JPST, KPIG, PNSE, and PSKT, while HOTL, PTSP, and SHID were in the grey zone category.

In 2019, ARTA, BAYU, FAST, HOTL, ICON, JGLE, JPST, KPIG, PJAA, and PSKT were classified as healthy, while PNSE, PTSP, and SHID were in the grey zone category.

In 2020, the results of the analysis showed that 5 companies (38%) were classified as healthy, 3 companies (23%) were in the grey zone, and 5 companies (38%) were at risk of bankruptcy. The healthy category included ARTA, BAYU, ICON, KPIG, and PSKT, while JGLE, JSPT, and SHID were in the grey zone category. The risk of bankruptcy category included FAST, HOTL, PJAA, PNSE, and PTSP.

Four hotels and restaurants, namely HOTL, PJAA, PNSE, and PTSP, had a Z score value below 0.1, indicating a high likelihood of financial distress. The study's overall conclusion is that the sustainability of Indonesian hotels and restaurant are questionable, and most hotels are at risk of losing their going concern status in the near future.

The financial condition experienced by companies categorized as at risk of bankruptcy has a negative impact on the company, especially for publicly listed companies, which will affect the decline in investor confidence, as well as other stakeholders. Therefore, management must take action to prevent bankruptcy, especially for companies that are at high risk of bankruptcy or in the red zone.

There are two solutions that can be taken if a company faces negative cash flow that results in difficulty in fulfilling its debt repayment obligations (Pustylnick, 2012):

1. Debt restructuring, which involves negotiating for an extension of debt repayment so that the company's cash flow is in a safe condition.
2. Making changes to management, if deemed necessary. The company can make changes to the old management that is considered incompetent, so that it can restore the company's performance to be better, thereby regaining stakeholder confidence in the company and avoiding the flight of investors due to the potential bankruptcy of the company.

Conclusions

In this study, it was demonstrated through empirical evidence that the likelihood of bankruptcy is considerably low in the tourism industry of Indonesia. Based on the results, it can be inferred that a total of five hotels and restaurant in Indonesia are currently in the safe zone, while only three hotels are in the grey zone, and five are in the distress zone. The assessment of business sustainability is conducted so that companies can identify potential bankruptcy risks as early as possible and minimize these risks in the future. This assessment also assists managers in evaluating the company's performance and operations, and determining whether the company has achieved good performance or not. Further research can test the same model in other sectors listed on the Indonesia Stock Exchange, as well as in hotels and other businesses that are not yet listed on the Indonesian Stock Exchange.

References

Aloy, N.J. and Pratheepan, T. (2015) The Application of Altman's Z-Score Model in Predicting Bankruptcy: Evidence from the Trading Sector in Sri Lanka. International Journal of Business and Management, 10 (12), 1833 – 3850

Altig, D., Baker, S., Barrero, J. M., Bloom, N., Bunn, P., Davis, S. J., Meyer, B., Mihaylov, E., Mizen, P., Parker, N., Renault, T., Smietanka, P., & Thwaites, G. (2020). *Economic Uncertainty Before and During the COVID-19 Pandemic*.

Altman, E. I. (2000). Predicting Financial Distress of Companies: Revisiting the Z-Score and Zeta® Models. In *Angewandte Chemie International Edition, 6(11), 951–952.*

Amedu, M. A. (2012). Role of Financial Statement in Investment Decision Making (A Case Study of First Bank of Nigeria PLC. *66*, *עלון הנוטע*(December), 37–39.

Blessing, A., & Onoja, E. E. (2015). The role of financial statements on investment decision making: a case of united bank for africa plc (2004-2013). *European Journal of Business, Economics and Accountancy*, *3*(2), 12–37.

Diakomihalis, M. (2012) The accuracy of Altman's models in predicting hotel bankruptcy. International Journal of Accounting and Financial Reporting, 2 (2), 2162 – 3082

Didier, T., Huneeus, F., Larrain, M., & Schmukler, S. L. (2021). Financing firms in hibernation during the COVID-19 pandemic. *Journal of Financial Stability*, *53*. https://doi.org/10.1016/j.jfs.2020.100837

Duréndez Gómez-Guillamón, A. (2003). The Usefulness of the Audit Report in Investment and Financing Decisions. *Managerial Auditing Journal*, *18*(February), 549–559. https://doi.org/10.1108/02686900310482687

Fauzia, I. Y. (2017). Mendeteksi Kebangkrutan Secara Dini Perspektif Ekonomi Islam. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, *19*(1), 90. https://doi.org/10.24034/j25485024.y2015.v19.i1.1758

Hodge, F., & Pronk, M. (2006). The impact of expertise and investment familiarity on investors' use of online financial report information. *Journal of Accounting, Auditing and Finance*, *21*(3), 267–292. https://doi.org/10.1177/0148558X0602100304

Hunter, R. J., & Shannon, J. H. (2020). Managing Financial Stress for Debtors and Creditors in the Midst of a Pandemic Part I: Security Interests under Article 9 of the UCC. *International Journal of Business Management and Commerce*, *5*(3), 11–20.

Iverson, B., Ellias, J. A., & Roe, M. (2011). *Estimating the Need For Additional Bankruptcy Judges in Light of tha COVID-19 Pandemic*. *28*(6), 4–6.

McKeown, J. C., Mutchler, J. F., & Hopwood, W. (1991). Toward An Explanation of Auditor Failure to Modify The Audit Reports of Bankrupt Companies. *Auditing : A Journal of Practice & Theory*, *Supplement*, 1–13.

Mahbuba, S. Assessing Financial Soundness of Tannery Industry in Bangladesh: An Empirical Investigation Using Z-Score. Eur. J.Bus. Manag. 2015, 07, 30–35.

Nagendrakumar, N. and Rameez, M.R. (2008) An Analysis of financial performance, financial position and creditworthiness about Commercial Bank Limited and Sampath Bank Limited. The Harbour- Journal of Faculty Communication and Business Studies, Eastern University, 2 58-70

Nguyen, L. T. M., Gallery, G., & Newton, C. (2016). The Influence of Financial Risk Tolerance on Investment Decision-making in A Financial Advice Context. *Australasian Accounting, Business and Finance Journal*, *10*(3), 3–22. https://doi.org/10.14453/aabfj.v10i3.2

Niresh, J.; Pratheepan, T. The Application of Altman's Z-Score Model in Predicting Bankruptcy: Evidence from the Trading Sector in Sri Lanka. Int. J. Bus. Manag. 2015, 10, 269–275.

Pustylnick, I. (2012). Restructuring the financial characteristics of projects in financial distress. *Global Journal of Business Research*, *6*(2), 125–135.

Putri, E. L., Haryanto, S., & Firdaus, R. M. (2018). Mampukah Good Corporate Governance dan Risiko Kredit Sebagai Prediktor Financial Distress? *AFRE (Accounting and Financial Review)*, *1*(1), 26–35. https://doi.org/10.26905/afr.v1i1.2291

Rahmah, I.; Novianty, I. Comparative Analysis of Financial Distres Before and During the COVID-19 Pandemic: Emperical Evidence in Indonesia. Int. J. Bus. Econ. Law 2021, 24, 216–222.

Usheva, M., & Vagner, L. (2021). Earnings Management as a Tool of Bankruptcy Prevention during Global Pandemic of COVID-19. SHS Web of Conferences, 92, 02063. https://doi.org/10.1051/shsconf/20219202063

Wang, J., Yang, J., Iverson, B. C., & Kluender, R. (2020). Bankruptcy and the COVID-19 Crisis. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3690398

Weerasinghe, D.R.M., Pathirana, G.P.T.D., Rajapaksha, R.C.M., Perera, R.A.K.R., Kaneshwaren, S., Nagendrakumar, N. and De Silva, L.M.H. (year) Corporate Social Responsibility and Financial Performance in Tourism Industry, Sri Lanka. [online] CMA National Management Accounting Conference

Wulandari, E. Y., & Maslichah. (2021). Penggunaan Model Springate, Ohlson, Altman Z-Score, dan Grover Score Untuk Memprediksi Financial Distress pada Masa Pandemi COVID-19 (Studi pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia). E-Jra, 10(05), 90–103. http://riset.unisma.ac.id/index.php/jra/article/view/10620