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E-PROCEEDING OF

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GREEN & SAFE CITIES
2022

“Sustaining the
Resilient, Beautiful and Safe Cities
for a Better Quality of Life”

20 & 21 SEPTEMBER 2022

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“ **Sustaining the Resilient, Beautiful and Safe
Cities for a Better Quality of Life** ”

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Perpustakaan Negara Malaysia

Cataloguing in Publication Data

No e ISBN: 978-967-2776-13-0

Cover Design: Muhammad Falihin Jasmi

Typesetting : Ts Dr Azizah Md Ajis

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PRELIMINARY FINDINGS OF SUSTAINABLE INTERIOR DESIGN CRITERIA IN HOTEL INDUSTRY TO THE PERFORMANCE IMPACT AND HEDONIC CONSUMPTION

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Abstract

Hotels are significant for the tourism industry and constitute pillars of sustainable tourism. Among the concern factors in maintaining the hotel industry is the tangible value such as aesthetic appearance, interiors, room decorations, and furnishings. Ideally, the hotel industry relies on customer satisfaction towards the service. Customer satisfaction on the aesthetics and products of the hotel's interiors are viewed as hedonic. Hence, fulfilling the hedonic consumption is crucial for hotel's facilities management. Nevertheless, the sector also has an adverse impact on the environment. Sustainability issues on the maintenance management of aesthetic performance, service hospitality and awareness on sustainable interiors products are significant concerns in the hotel's performance effectiveness. Therefore, this study aims to identify the components of sustainable interior design requirements relating to facilities management in performance effectiveness and hedonic consumption. A qualitative method using semi structured interview was carried out in the preliminary phase of this study, involving three survey participants (architect, interior designer, GBI facilitator) that have experience in designing various green hotels. The data is analysed using ATLAS.ti9© qualitative software. The findings revealed that there are seven (7) sustainable ID criteria consists of biophilic, energy efficiency, water consumption, health and social flexibility, environmental comfort, ergonomics, and green awareness. The survey participants agreed that all of these criteria are related to a hotel's performance effectiveness in functional performance, environmental performance, technical performance and social performance. While for hedonic consumption, the sustainable ID is impacted to the hedonic elements in customer's mood, happiness, preferences and enjoyment. This study is significant to help the hotel industry managers identify which aspects of the property are critical to successful performance by integrating facilities management to the sustainable interior design requirements.

Keywords: *ATLAS.ti 9; Hedonic consumption; Hotel Industry; Interview Findings; Sustainable Interior Design, Performance Effectiveness*

INTRODUCTION

Hotels are significant for tourism industry. Hotels constitute one of pillars in the tourism sector and are highly unique among other commercial buildings (Bohdanowicz, 2006). For hotel industry, the first one considers the responsible design of buildings aiming to avoid the excessive use of resources by proper design. As supported by Othman and Mazli (2012),

interior design plays an important role on human mood and social behaviours. Hotels are concentrating on aesthetics values as one aspect of perceived experiential value. The effect is stronger for hotel service goods that has been demonstrated to improve consumers' attitudes towards their intentions to stay in the hotel (Kirillova and Chan, 2018). For example, a study by Artuğer (2020) showed that factors that should be considered for fulfilling the needs of hotel guests were physical appearance of the hotel, room decoration, furnishing, elements such as the colours used in the hotel, the quality of furniture, odours, music, heating and cooling. These factors, including the interior designs are considered as tangible values that should be allocated in the hotel aesthetics.

According to Claver-Cortés et al., (2007) and, Ham and Han (2013), among the green practices and initiatives implemented by the hoteliers are by promoting environmentally products and services for hotels. In the recent reports, practices on sustainability have emerged as a critical concern in the hotel strategy as long-term profitability to company and communities (Hilton, 2020; Marriott International, 2020; Shangri-La, 2020). Since the hotel industry services are vary and complex, it is crucial to recognize the contextual characteristics and understand the surrounding environment of operations through proper facilities management (FM). The concept of FM integrates services that link sustainability to business value during strategic, tactical, operational planning and decision making (Abisuga & Wang, 2019; Amos et al., 2019; Koleoso et al., Omirin et al., 2013; Mat et al., 2011). It involves multiple disciplines to ensure functionality of built environment by integrating people, system place, process, and technology. Thus, hoteliers should be constantly addressed the FM concept for business profitability. As supported by Rodrigues et al., (2019), hotels should develop market orientation to improve business performance. Sustainable practice in FM is not only crucial for the management of new assets but, at the same time, they are essential for managing existing assets (Hasim, Yasin and Zaidi, 2020). Therefore, it is crucial to address the sustainability practice of facilities management for hotels industry.

PROBLEM STATEMENT

As like other industry, the hotel industry and tourism sector also have an impact on further degradation of the environment. Sustainability issues on the maintenance management of aesthetic performance, service hospitality and awareness on sustainable interiors are among significant concerns in the hotel's performance effectiveness. Performance effectiveness is defined as the accomplishment outcome of evaluating the building performance to understand how the building meets the design, function and capability (Khalil et al, 2016). The effectiveness can be measured using facilities management (FM) approach, through building performance evaluation. There is a need for considerably more research to gain deeper understanding of sustainability in FM and the dynamic socio-technical complexities of operating and managing buildings in use (Nielsen et al, 2016).

According to Hasim et al., (2020), sustainable practice in organisation will benefit the owners towards sustainable economic, environmental, socio-cultural as well as legal policy. However, benchmarking the facilities management performance effectiveness and hedonic performance based on sustainable interior designs is lacking in the previous study. In hotel, the issues on the maintenance management of interior design components includes dampness, cracks, detach, wear and tear, and biological. Service and hospitality experiences in hotels are conventionally viewed as hedonic, with an emphasis on aesthetic consumption (Oh et al.,2007). Hedonic is defined as experience or consumers experiential analysis based on the facility or products used. According to Kirillova and Chan (2018), the effects of enviroing factors on consumer behaviour have been studied in relation to these concepts in several contexts, including hedonic performance in hotels by Lin (2016).

Despite these advances, however, few studies have focused on the aesthetic components of interiors in the facilities management performance effectiveness. Unlike the consumption of products of service operations, the consumption of tourism and hospitality products tends to be aesthetically oriented. Hotel appearance has become a form of commodified enchantment, the product of an aesthetics process that aims to create novelty, surprise, and excitement to generate profits (Kirillova and Chan, 2018). Therefore, this study aims to identify the components of sustainable interior design requirements relating to facilities management in performance effectiveness and hedonic consumption. The sustainable interior designs components will be explored to seeks its suitability to the context of facilities management towards performance effectiveness and hedonic performance on hotel industry.

METHODOLOGY

A qualitative method using semi structured interview was carried out in the preliminary phase of this study, involving three (3) participants or experts, with proficiency and well experienced in designing various green hotels. The interview questions consisted of three (3) open-ended type questions. The responses were recorded and transcribe into a written format document. The data is then analysed using content analysis and also network presentation of ATLAS.ti 9© qualitative software. The quotations and responses from the interview session were segmented using deductive techniques, where the coding and themes were preliminary prepared to helps answer the research questions. Limitations of this study occurred on the sample size of only three (3) obtained responses and it focuses on the industry experts who involved in design and build of a green hotel rather than responses from hotel facility manager.

ANALYSIS AND DISCUSSION OF FINDINGS

A total of three experts agreed to participate in the interview session, and they represent both government and private organisations. The experts were carefully chosen from the list indicated in the GBI website. The participants were comprised of senior architect, senior interior designer consultants and GBI facilitator. All three experts were currently industry practitioner involving in construction design and build projects as well as the experts are acknowledged in the field of designing green hotels projects as well as other category of green projects. The selection of expert's background is crucial in ensuring that their responses are aligned to the field of sustainable interior design criteria and the impact on hotel performance effectiveness and hedonic consumption. The interview session was carried out in a separate date and session, and took about 30 minutes to 45 minutes per session. The interview process began by briefing the interviewee on the purpose of the interview and also explanation of research background. In terms of years of experience, all of the participants have 14 years to 25 years working experience. Table 1 shows the background of the experts who participate in this validation interview.

Table 1
Background of the Interview Participants

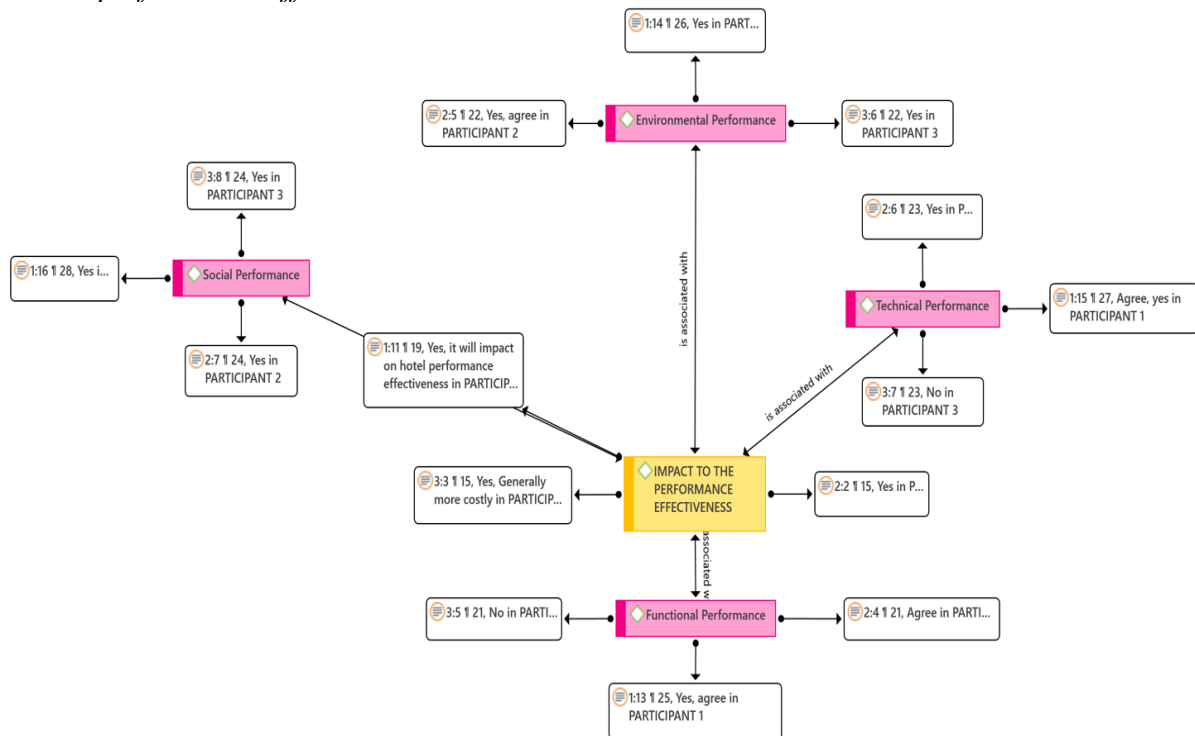
REF.	SECTOR	BACKGROUND / DESIGNATION LEVEL	YEARS OF EXPERIENCE
P1	Government	Architect / GBI Facilitator	25 years
P2	Private	Interior Design / Senior Interior Consultant	15 years
P3	Private	Architect / Senior Architect	18 years

Findings on the suitability and selection of sustainable interiors design impacted to hotel's performance effectiveness

The interview participants were asked on their agreement that the hotel's performance effectiveness will be influenced based on the suitability and selection of sustainable interiors design criteria. The performance effectiveness was listed towards functional performance, technical performance, environmental performance and social performance. The evidence of the participants' responses was shown using network of ATLAS.ti© in Figure 1.

Figure 1

Network of coding and participants' responses on sustainable interiors design impacted to hotel's performance effectiveness

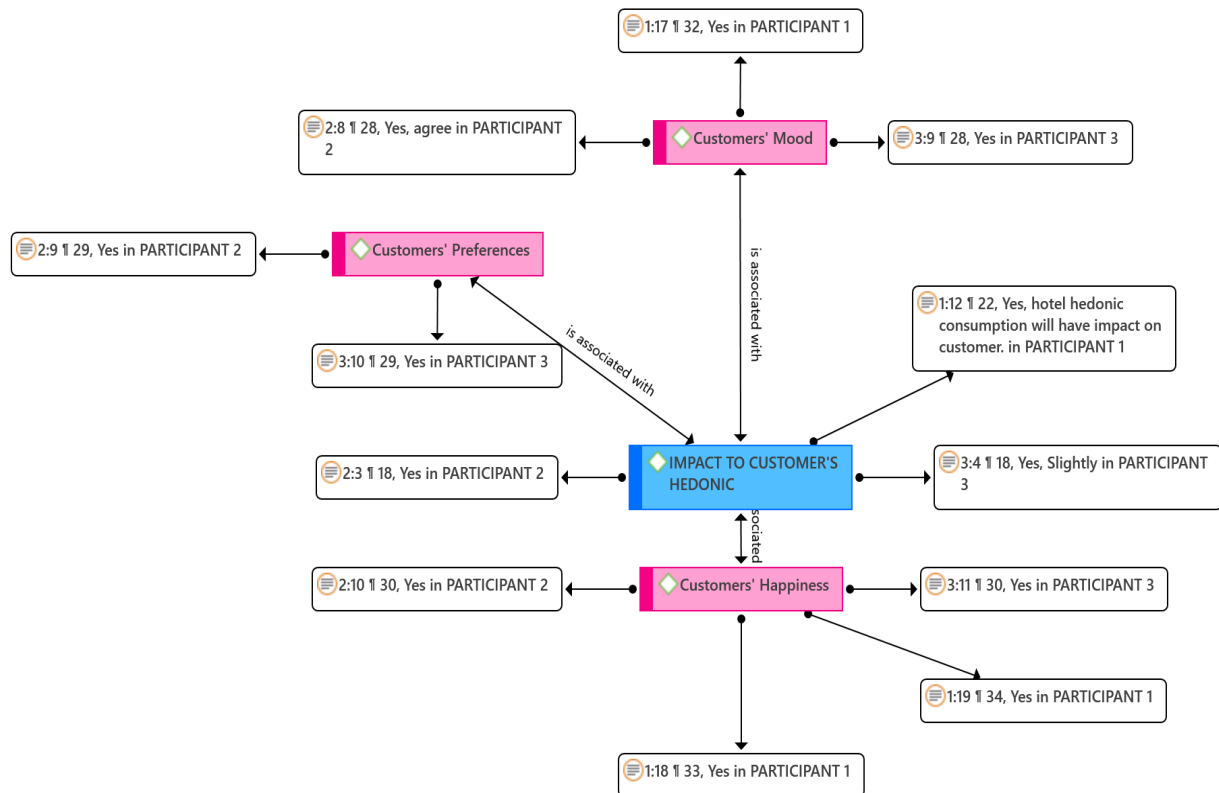


The findings shown that the participants agreed that the sustainable ID are associated to the hotel's performance effectiveness in functional performance, environmental performance, technical performance and social performance. It is evidenced through quotations ID 13, 14, 15 and 16 by Participant #1 (1:13, 1:14, 1:15, 1:16) and the rest of quotations from Participant #2 and Participant #3 (2:4, 2:5, 2:6, 2:7, 3:6, 3:8). However, Participant #3 is disagreed with the impact of hotel's performance to the functional and technical, as evidenced in quotation 5 and 7 (3:5 and 3:7). This response could be emerged because of the participants misunderstanding on the description of functional performance and technical performance. As described by Khalil et al. (2016) and Dabestani et al., (2016), functional is described as ability of the building to achieve the optimum serve towards functional purpose, fit-for purpose, and meet the organisation's objectives and goals. While technical performance is described as a measure on how well function of the building meet the efficiency of technical services in the building that supports the building operation (Shalabi, 2017; Khalil et al, 2016). Ideally these performance elements relate to the context of facilities management. As supported by Abisuga et al. (2019), robustness of functional and technical are needed for routine extensive maintenance, which includes adaptability, aesthetics and durability of materials to cater unplanned functional and technical failures.

Findings on the suitability and selection of sustainable interiors design impacted to hedonic consumption

Next, the participants were asked on their opinion whether sustainable interior is impacted to the hedonic elements in customer’s mood, happiness, preferences and enjoyment. As shown in the network of ATLAS.ti© in Figure 2, all of the participants agreed that the interior elements will be impacted to the hedonic elements in terms of customer’s mood (Quotations ID 1:17, 2:8, 3:9) happiness (Quotations ID 1:18, 2:10, 3:11), and preferences (Quotations ID 2:9, 3:10, 1:19). Their responses are evidenced through quotations of participants. This is aligned with (Han *et al.*, 2020) and Zemke that the hotel’s green practices significantly increased values and pro-environmental intentions, and both hedonic and utilitarian values. As mentioned by (Zemke, Raab and Wu, 2018), a service that is designed to better satisfy the hedonic and utilitarian needs of the customer will garner a larger market share and higher revenues. Thus, customers satisfaction and feedback is the main hotel’s business objectives.

Figure 2
Network of coding and participants’ responses on sustainable interiors design impacted to customers’ hedonic

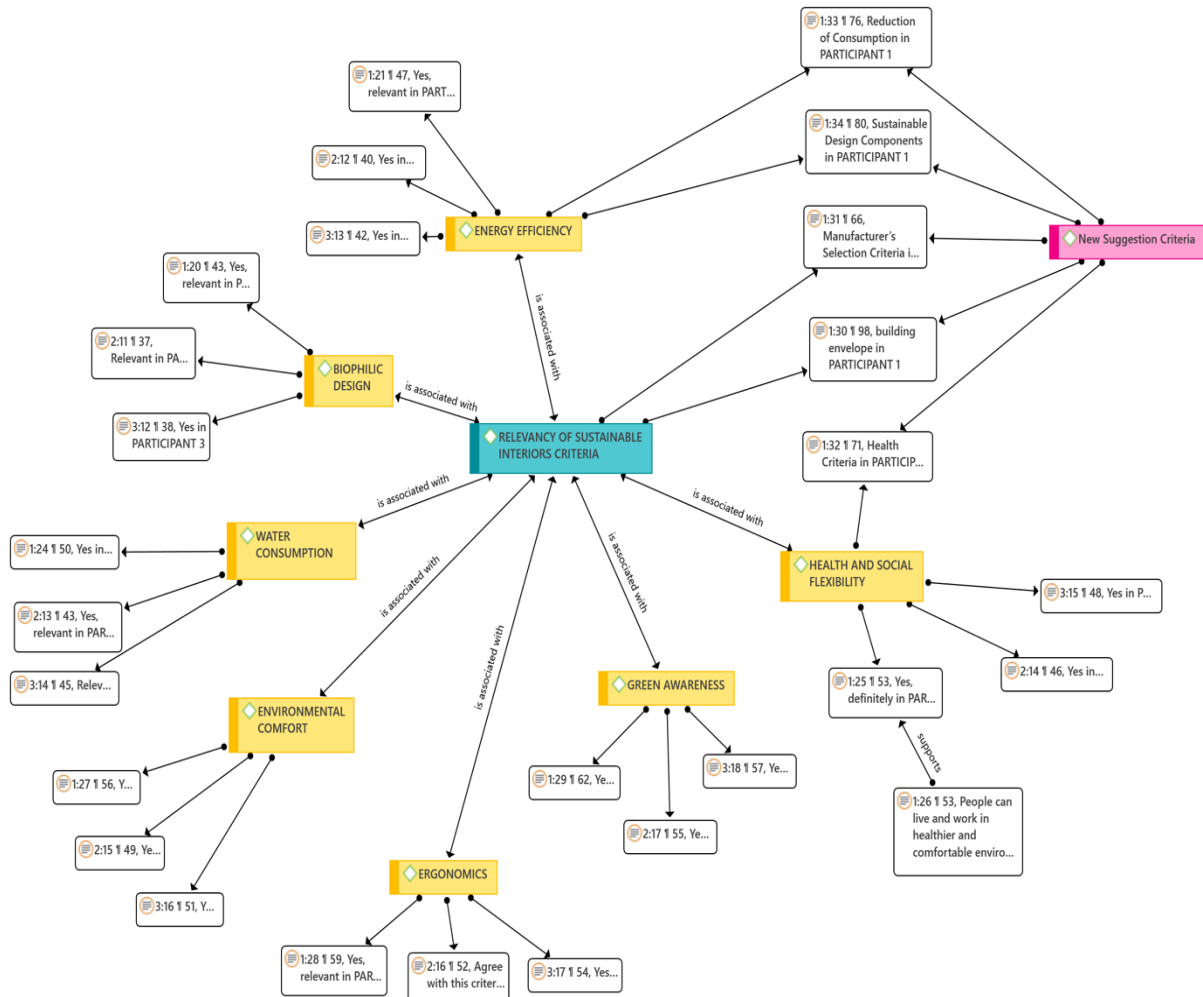


Findings on the criteria of sustainable interior design

Lastly, the interview participants were asked in terms of agreement with the relevancy of sustainable interior design criteria relates to the performance effectiveness and hedonic consumption. An initial list of sustainable ID criteria is shown to the interview participants, as a pre-guided reference to them, which consists of seven (7) criteria: i) *Biophilic*, ii) *Energy Efficiency*, iii) *Water Consumption*, iv) *Health and Social Flexibility*, v) *Environmental Comfort*, vi) *Ergonomics* and vii) *Green Awareness*. These criteria were compiled from ASEAN Standard of Green Hotel, Malaysia Green Hotel Standard, Green Building Index for

Existing Hotel, Green Building Index for Interior, My Hijau Directory and previous research (source :(GBI, 2014, 2015; ASEAN, 2016; Malaysia, 2018; MyHijau, 2018) (Braun, 2011; Heide et al., 2007; Kirillova & Chan, 2018; Zemke et al., 2018; Ben Aissa & Goaid, 2016; Panno, 2019).

Figure 3
Network of coding and participants' responses on criteria of sustainable interiors to performance effectiveness and hedonic



Based on the findings, the interview participant agreed with the relevancy of seven (7) sustainable ID criteria consists of Biophilic, Energy Efficiency, Water Consumption, Health and Social Flexibility, Environmental Comfort, Ergonomics and Green Awareness, as shown in the network of ATLAS.ti© in Figure 3. There are new suggestions of sustainable interior criteria were suggested by Participant #1 where the criteria of sustainable interior are also includes Reduction of Consumption, Sustainable Design Components, Manufacturer's Selection, Building Envelope and Health Criteria (Quotation ID 1:33, 1:34, 1:31, 1:30, 1:32). These criteria are aligned to those items listed in the GBI criteria for green hotels (GBI, 2014). However, those new suggestions are also associated to the criteria of Energy Efficiency and Health and Social Flexibility. As supported by Pertičević & Milkić (2018), efficient usage of space, the material with less impact on environments, reducing non-renewable energy consumption, reducing pollution and waste. Criteria of sustainable interior products and materials are significant to manufacturer selection, health, reduced consumption, sustainable design components, and efficient design resource management (Rashdan and Ashour, 2017).

The implications of all the findings gathered in this exploratory interview was significant process for the first phase the study. The findings of sustainable interior design criteria impacted on hotel performance effectiveness and hedonic consumption is tally to the concept of Building Performance Evaluation (BPE). Building performance concept provides valuable feedback to the existing building client and help to feed-forward direct input to the next building cycle for design improve (Amaratunga and Baldry, 1998).

CONCLUSION

It can be concluded that identifying sustainable interior elements in hotels are crucial to establish sustainable performance and competitive benefit since they contribute significantly to developing a positive brand image, meeting customer expectations and standards as well as reducing operational costs. Sustainability in the green hotel business depending on the well-combination of management theory and industry green practice. This study is significant to help the hotel industry managers identify which aspects of the property are critical to successful performance by integrating facilities management to the sustainable interior design requirements. Further study will be addressed to the sub-divisions or sub-components from the main criteria of sustainable interior elements and further stage in questionnaire development.

ACKNOWLEDGEMENT

The authors wish to acknowledge the support grant in performing this study under the Fundamental Research Grant Scheme (FRGS) Phase 1/2021 funded by the Ministry of Higher Education Malaysia (MOHE).

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Tarikh : 20 Januari 2023

Prof. Madya Dr. Nur Hisham Ibrahim
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Saya yang menjalankan amanah,

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