



MADA – Marketing Analytic Digital Apps: A Business Dynamics Trajectory

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ABSTRACT

Tebing Breksi, a tourist destination in Sambirejo Village, Prambanan, Sleman, Yogyakarta, has an important role in the local tourism industry. Tourist loyalty in this area is a key factor in tourism development and management. The Sapta Pesona Wisata concept is implemented as a strategy to increase the attraction and experience of tourists at Tebing Breksi. This research uses a quantitative approach with an associative method to examine the relationship between the elements of Sapta Pesona and tourist loyalty. A sample of 100 respondents was selected using the Purposive Sampling method at Tebing Breksi Beach. Data analysis was carried out using simple linear regression and statistical tests with the help of IBM SPSS version 26 software. The research results showed that the application of Sapta Pesona had an effect of 36.8% on tourist loyalty at Tebing Breksi. However, partially, only the security element has a significant influence. These findings highlight the importance of continuing to improve the quality of tourist experiences and tourism management at Tebing Breksi to support the sustainable growth of the tourism industry.

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BACKGROUND

Tourism is a critical pillar of Indonesia's economy, and hotels play a crucial role in its success. As more and more people discover Indonesia's beauty and charm, the hotel industry is experiencing significant growth. However, this growth comes with its unique set of challenges. The tourism and hospitality sector is highly dynamic and susceptible to various shifts, be they gradual, such as changes in consumer preferences, technology, and supply chains, or sudden, such as natural disasters.

Despite these challenges, the hotel industry continues to evolve, adapting to the ever-changing landscape. Hotel managers are adept at strategically allocating rooms for sale, considering timing and pricing, and using data-driven insights to formulate and execute

effective strategies. Revenue management's skillset is central to hotels' sustainability and resilience, and its importance cannot be overstated.

Revenue management aims to optimize the revenue-per-available-room, a metric that reflects adept inventory management. Ideally, every room should be occupied nightly, aiming for full occupancy to achieve this goal. Achieving full occupancy is a challenging task requiring meticulous planning and execution. Hotel managers must be aware of the latest trends and constantly adapt their strategies to remain competitive.

The hotel industry is not just about maximizing profits; it also plays a crucial role in preserving and developing local arts and culture. Hotels are integral to the superstructure of tourism, and they not only drive employment growth within the sector but also foster the preservation and development of local arts and culture. By doing so, they help to create a unique and authentic experience for tourists, which is a significant reason why people visit Indonesia.

The commitment of hotel managers to excellence inspires market leadership and reflects the resilience of the hotel industry. They are not just managing rooms; they are managing experiences. They are passionate about providing their guests with the best possible experience and creating memories that will last a lifetime. The hotel industry continues to grow and evolve, and with it, there are opportunities to provide exceptional experiences for tourists visiting Indonesia.



Figure 1. Market positioning process

MADA is a tool to acquire accurate and reliable data intelligence (refer to Figure 1). The prerequisites for valuable data, as outlined by Sugiarto (2022), include

- objectivity, representing real-world scenarios with high accuracy;
- representativeness, depicting relevant conditions;
- precision, accurately reflecting measured parameters with minimal deviation, and

- reliability, ensuring correctness, timeliness, and relevance to address current issues under discussion.

Each input data should adhere to these criteria for quality data. Exemplary data will be categorized based on parameters to facilitate sorting and processing.

Data and analysis are indispensable for understanding and pre-empting market dynamics. Concurrently, industry and academia require assistance in data collection and analysis to adequately map competition among tourism businesses, forecast tourism trends, and identify patterns. The study's problem identification encompasses the following:

- a. The significance of competitive analysis for hotel management.
- b. Methods for conducting data collection and initial analysis related to competitive analysis.
- c. The extent of economic support from industry players in facilitating the development of this application.

Given the background mentioned earlier and the issues, the study sets forth the following objectives:

- a. Assess the importance of competitive analysis for hotel management.
- b. Streamline the process of data collection and initial analysis pertinent to competitive analysis.
- c. Evaluate the level of economic support from industry players for developing this application.

The subsequent sections of the paper are structured as follows: Section 2 provides a comprehensive feasibility review of the digital hospitality analytic insight application to anticipate business dynamics. Finally, Section 3 concludes the study and outlines avenues for future research.

Feasibility Review of MADA as a Digital Hospitality Analytic Insight Application to Anticipate Business Dynamics

Good data can only be obtained through an adequate market intelligence process followed by qualified market analysis techniques and competition analysis (Hill, Charles, *et al.*, 2007). Data that plays an important role in the market intelligence process is an integration of cross-sectional data and time series data with its components which include Secular Trend, Cyclical Variation, Seasonal Variation and Irregular Variation. Cross section data is taken at a time and place, while TIME SERIES data is a collection of data recorded over a period of time to make decisions and plans. It usually assumes a past pattern to continue to the future (Sugiarto, *et al.*, 2021).

The output of the two processes on the collected data is the main material for decisions making in the revenue management process. The idea of providing an application to assist industry players in obtaining data and reports regarding market conditions and the position of their hotels from a competitive perspective requires the development of formulation, programming, and technology. The involvement of hotel operational analysis experts, programmers and system developers, and system analysts determine the success of the expected application development.

Digital technology is developing rapidly; the development of 4G will soon become 5G, which will become the basis for an increasingly reliable network.; This will ensure smooth gadget-based data traffic. The MVC (Model, View Controller) system programming is also growing; a certainty that there will be supporters who will later use this application is also critical so that this application is feasible as a commercial project (see Figure 2). This study is complemented by a survey consisting of 17 questions to identify support for MADA. These questions are primarily addressed to GMs with digital surveys through the Indonesian General Managers Association (IHGMA) to identify how important this competitive analysis is for hotel leaders; the second is to identify the willingness of hotel top management to be actively involved in providing accurate and timely data. The third is to identify economic support for the need for the importance of market analysis applications.

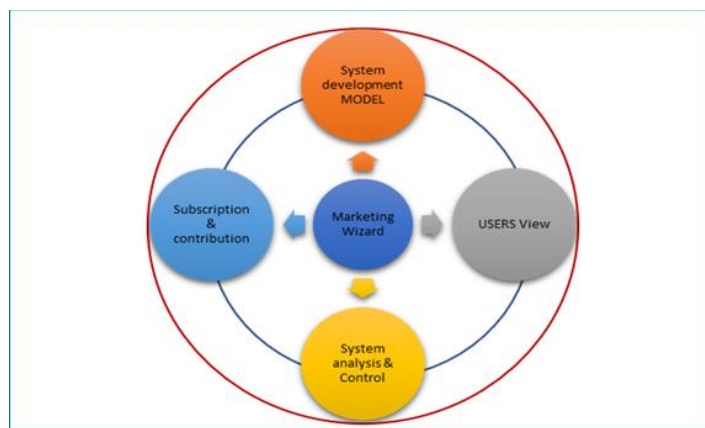


Figure 2. MVC system programming, Subscription approach, and Contribution (Sources: Dimata Inteligent IT Solutions Processed 2022)

This study was completed with 17 survey questions to identify support for MADA. These questions were primarily addressed to GM with a digital survey through the Association of General Managers Indonesia (IHGMA) to identify how important this competitive analysis is for hotel leaders. Secondly, this survey question aims to identify the willingness of top hotel management to be actively involved in providing accurate and reliable data. The third is to identify economic support for the need for the importance of market analysis apps. The survey

was conducted from February 22 to March 1, 2022, with 109 respondents. Of all respondents, 68.52% of respondents stated that they were very and "very, very" familiar with competitive analysis. As many as 65 respondents, or 68.44%, stated that they made and needed this analysis at least once a week. The majority, 40.74%, stated that they conducted a competition analysis daily. Interestingly, 95.33% of respondents stated that competition analysis was very important, and 93.52% used it as the basis for pricing and positioning policies. None of the respondents stated that this analysis was not important and that it was important to use this analysis to determine pricing and positioning policies (see Figure 3).

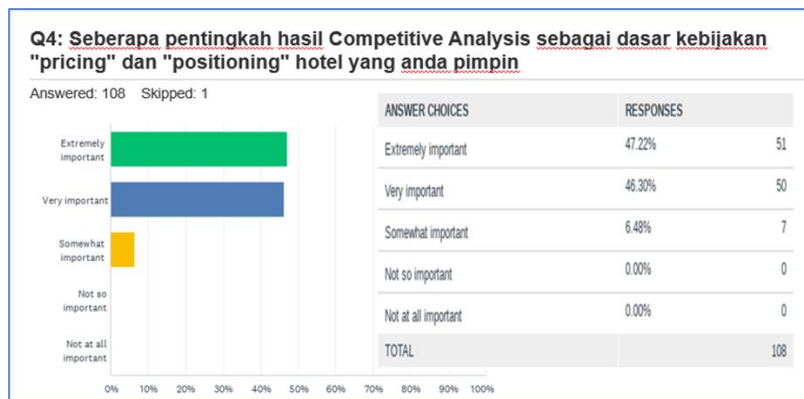


Figure 3. Determining pricing and positioning policies

Regarding respondents' satisfaction with the current analysis results, 56.48% said they were satisfied, 34.20% doubted, and only 9.26% said they were not satisfied; This shows that respondents have seriously tried to get and process the data obtained to be applied in the policies they take. Nevertheless, on the other hand, doubts about the accuracy of the data obtained are still dominant, even almost in-par with the percentage of satisfaction.

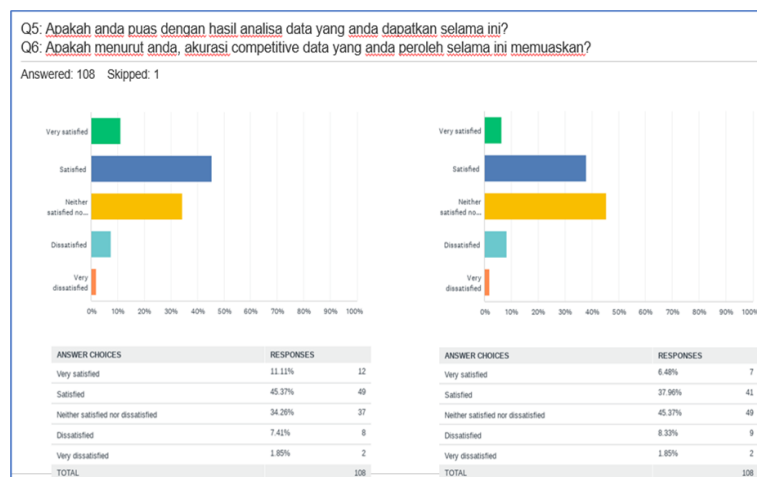


Figure 4. Results of analysis and accuracy of data

Regarding doubts about the accuracy of the data and answering the seventh question, about respondents' interest in increasing data accuracy, 88.79% of respondents stated that they

were "very, very" interested and very interested in being involved (see Figure 4). A small percentage, namely 11.21% or as many as 12 respondents, indicated a slight interest in improving the accuracy of the competition analysis data. However, no one stated that they were not interested. Re-confirming respondents' interest and willingness to share accurate data on occupancy rates and daily average prices, 85.32% of respondents agree and strongly agree to share accurate data, as shown in the Figure 5 below.

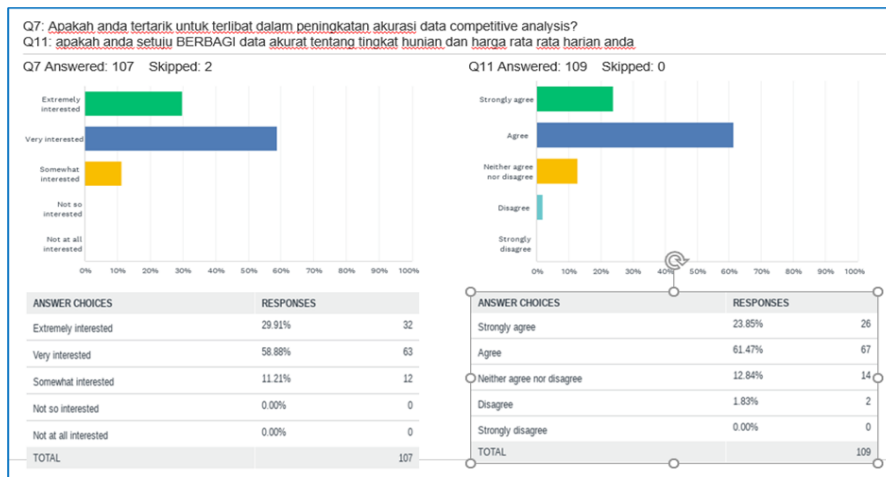


Figure 5. accurate data involvements chart

In line with the plan for collecting and sorting data and the analysis results, respondents indicated the importance of market competition based on location (local, regional, national), price level (average rate), star rating and occupancy rate (see Figure 6).

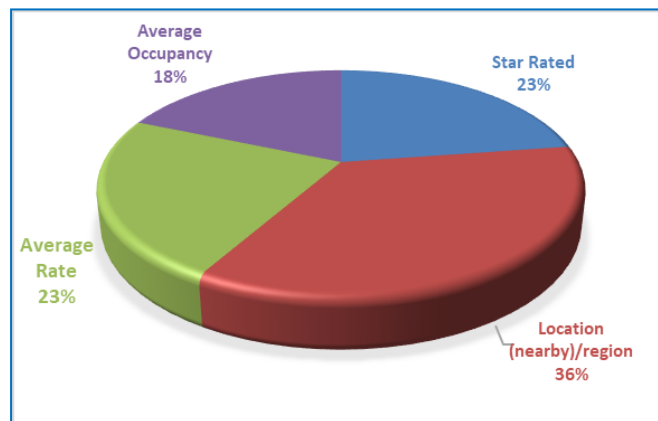


Figure 6. Rank of Market Competition from respondent's perspective

Market competition analysis yields several important indications for decision-making; these indications are Fair and actual market share, Market penetration index, price penetration index, revenue penetration index and market leader identification. In this case, respondents indicate their needs as shown in the following Figure 7.

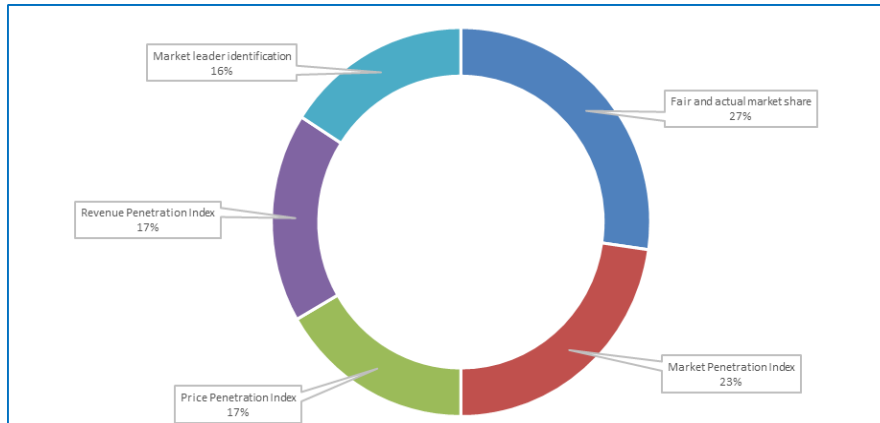


Figure 7. The market indices rank from the respondents' perspectives

All analysis results have relatively equal importance to respondents; once again, this indicates how a comprehensive analysis and a complete analysis result report will be a benchmark for the success of this application in the eyes of its users. Of 109 respondents, 106 of them or 97.25% of respondents agree and strongly agree to support the development of this marketing wizard application. Furthermore, in question number 12, identified 90 respondents out of 109 or 82.57%, agreed to become an active member. Amongst the 104 respondents who answered question number 13, 57.69% of GMs will input the data themselves. 29.81% will submit it to FC/AFC or accountants, 45.19% will submit it to FOM/ Duty Manager, and only 18.27% will entrust it to the reservation/reception (see Figure 8).

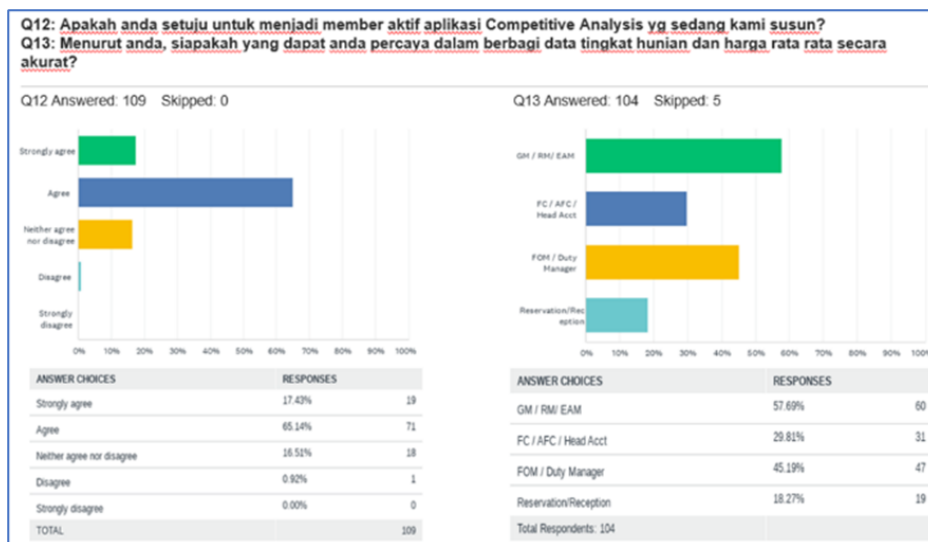


Figure 8. Indication of active participation

Furthermore, with questions number 14 to 17, the survey wants to identify the most appropriate form of contribution to finance the maintenance and development of this apps and the value of the contribution. In identifying the respondent's contributions, 25.69% of respondents indicate that monthly cash support is the best form of contribution, 72.82%

indicate the value is in the range of 1-3 million, and the remaining 28.15% indicate an equivalent cash contribution can reach the range of 3-8 million per year (see Figure 9).

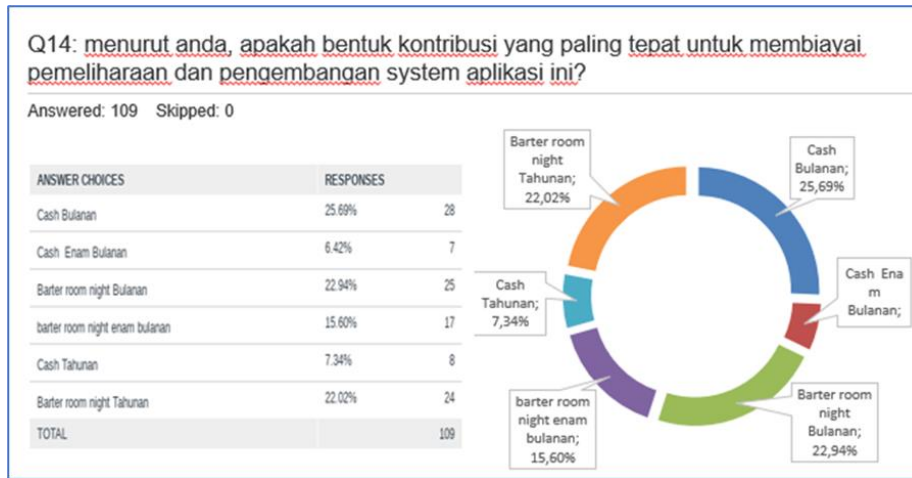


Figure 9. Respondents respond on form of contribution

However, 60.56% of respondents indicate the best form of contribution is with room barter. Figure 10 is the room barter chart indicating the number of rooms barter according to the hotel's star rating (see Figure 10).

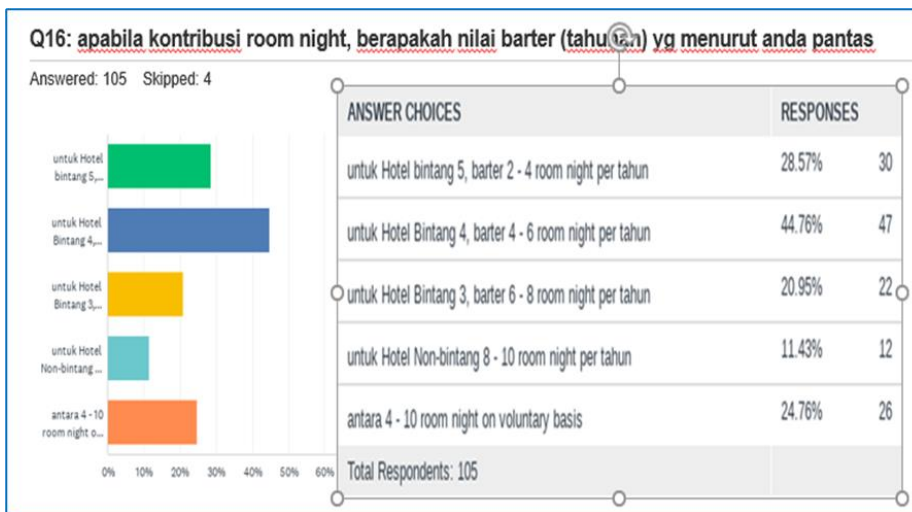


Figure 10. the number of rooms barter according to the hotel's star rating.

Based on the survey results in question 16, the average contribution of five-star hotels will be 3 room nights, four stars is 5 room nights, three stars for 6 room nights and non-stars for 8 room nights. Suppose the room price for a five-star hotel is 1.5 million rupiahs. In that case, 4-star is 750 thousand rupiahs, 3-star is 350 thousand rupiahs, and non-star is 250 thousand rupiahs; by calculating the proportional contribution, the average value per room night is 561,364 rupiah. Assuming that this barter will be "voluntarily" bartering 4-10 room nights with an average (median) of 6 room nights, then the average barter value per year per hotel reaches Rp. 3,368,184. Furthermore, according to the survey question 12, there are 90

respondents confirmed to contribute, that makes Rp 303.136.364 of yearly income (see Figure 11)

Answer Choices	Responses	Contributions	Rate	Sum
untuk Hotel bintang 5, barter 2 - 4 room night per tahun	28,57%	30	median 3	1.500.000 4.500.000
untuk Hotel Bintang 4, barter 4 - 6 room night per tahun	44,76%	47	median 5	750.000 3.750.000
untuk Hotel Bintang 3, barter 6 - 8 room night per tahun	20,95%	22	median 6	350.000 2.100.000
untuk Hotel Non-bintang 8 - 10 room night per tahun	11,43%	12	median 8	250.000 2.000.000
Average value per room night			22	561.364 12.350.000
antara 4 - 10 room night on voluntary basis	24,76%	26	median 6	3.368.182
Answered		105		
Skipped		4		
partisipasi aktif		90		303.136.364

Figure 11. Simulation of confirmed contribution

The last question, number 17, is the final question to reconfirm that the Marketing Wizard is a collaborative form of Indonesian tourism actors to better understand the business trends and promote healthy competition in elevating Indonesian tourism with 94.44% of respondents stated they agree and "strongly agree" (see Figure 12).

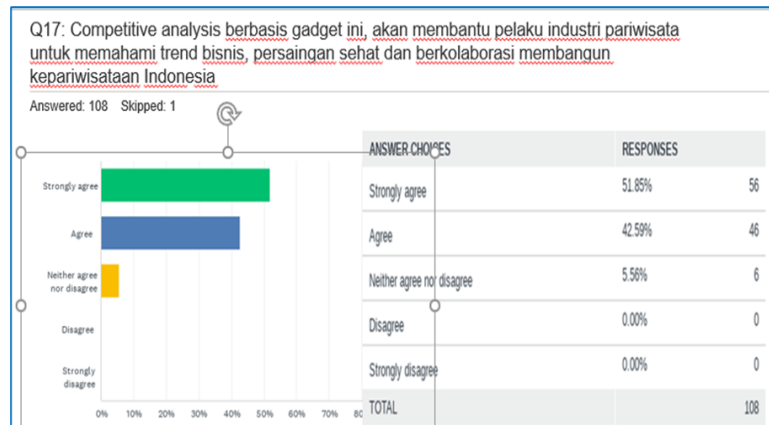


Figure 12. Level of support of towards MADA

CONCLUSION

About 95.33% of respondents stated that competition analysis was important and very important, and 93.52% used it as the basis for pricing and positioning policies. None of the respondents stated that this analysis is not important. Data collection will be carried out through android-based applications, where each input data will be grouped according to the perimeter to facilitate sorting and processing. The data that has been identified is sorted by system programming and then enters further processing in the form of a competition analysis that produces reports: Market penetration index, Rate penetration Index and Revenue penetration index. From these three indexes, the market leader position is determined. According to survey question 12 (Q12) results, 90 respondents stated that they were ready to become active members. In question 14 (Q14), 60.56% of respondents stated that participation financing was

carried out by barter room nights with an average value of 6 room nights. Through question 16 (Q16), calculation of proportional contribution, the average value per room night is IDR 561,364; it can be projected that the contribution value per year will reach IDR 303,136,364 or IDR 25,261,363 for system maintenance per month. Thus, the survey results show that this Marketing wizard application is feasible to be developed.

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