

Analysis Of Determinant Factors in Choosing Private Health Higher Education: The Role of Service Quality as A Moderating Variable

Nana Noviada Kwartawaty^{*1}, Sucihatininingsih Dian Wisika Prajanti², Suwito Eko Pramomo³, Muhammad Khafid⁴

¹Doctoral Program in Educational Management, Graduate School, Semarang State University, Indonesia

²Department of Development Economics, Faculty of Economics and Business, Semarang State University, Indonesia

³Department of History Education, Faculty of Social and Political Sciences, Semarang State University, Indonesia

⁴Department of Accounting, Faculty of Economics and Business, Semarang State University, Indonesia

^{*}Corresponding Author E-mail: Nana Noviada Kwartawaty, nananoviada@students.unnes.ac.id

Doctoral Program in Educational Management, Graduate School, Semarang State University, Indonesia

ARTICLE INFO

ABSTRACT

Received: 29 Dec 2024

Revised: 15 Feb 2025

Accepted: 24 Feb 2025

This study analyses the determinant factors influencing students' decision-making in selecting private health higher education institutions, with service quality as a moderating variable. The research applies the Theory of Planned Behavior (TPB) and Consumer Behavior Theory to understand the impact of perceived value, digital marketing innovation, institution image, and competitive pricing on decision-making. The study employs a quantitative approach using Structural Equation Modeling (SEM) for data analysis. Findings indicate that perceived value, digital marketing innovation, and institution image significantly affect decision-making. Competitive pricing, directly and indirectly, influences decision-making through perceived value, digital marketing innovation, and institution image. Moreover, service quality strengthens the relationship between competitive pricing and decision-making. This research provides theoretical implications for higher education marketing strategies and practical recommendations for private health universities to enhance competitiveness through quality service improvements.

Keywords: Decision-making, Service Quality, Private Health Education, Competitive Pricing, Digital Marketing, Institution Image

INTRODUCTION

Higher education plays a critical role in developing human resources, particularly in the health sector, where the demand for qualified professionals continues to rise. (Aaker, D. A., & Keller, 1990). Private health universities, however, face significant challenges in attracting prospective students due to intense competition from public institutions, which are often perceived as more prestigious and affordable. This competitive landscape necessitates a deeper understanding of the factors influencing students' decision-making processes when selecting a private health university (Butt et al., 2024).

Several key determinants shape students' choices, including perceived value, institution image, digital marketing innovation, and competitive pricing. Perceived value reflects the balance between tuition fees and the quality of education received, including academic excellence, practical training, and career opportunities. (Sumarwan, U., Puspitawati, H., Hariadi, A., Mukti Ali, M., Gazali, M., Hartono, S., & Farina, 2011). Institution image encompasses the university's reputation, accreditation status, and alumni achievements, which significantly impact prospective students' trust and preference. (Darley, W. K., Blankson, C., & Luethge, 2010). Meanwhile, digital marketing innovation has transformed student recruitment strategies, as universities increasingly leverage social media, targeted advertising, and interactive online content to engage with potential applicants. Competitive pricing also plays a crucial role, as affordability and financial aid options influence students' ability to enrolment (Kotler, P., & Armstrong, 2008).

Beyond these primary factors, service quality serves as a moderating variable that can either strengthen or weaken the impact of competitive pricing on decision-making. High-quality services, such as responsive administrative support, well-equipped facilities, and personalized academic assistance, enhance students' experiences and reinforce the perceived value of their investment in education. (Lin, C. H., Sher, P. J., & Shih, 2005). Conversely, poor service quality can deter prospective students, regardless of competitive tuition rates. Given the increasing competition in the private higher education sector, it is essential to examine the interrelationships between these factors to provide actionable insights for university administrators and policymakers. (Cheng, 2016). This study aims to analyze how perceived value, institution image, digital marketing innovation, and competitive pricing influence students' decision-making and how service quality moderates these relationships. The findings will contribute to the theoretical framework of higher education marketing and offer practical recommendations to improve student recruitment strategies and institutional competitiveness.

LITERATURE REVIEW

Theory of Planned Behavior (TPB)

The TPB explains how attitudes, subjective norms, and perceived behavioral control influence individual decisions. In higher education selection, attitudes toward an institution, social influence, and control over decision-making are critical determinants. **Consumer Behavior Theory** Consumer behavior theory highlights the psychological, social, and personal factors influencing purchasing decisions, which are applicable in selecting higher education institutions. (Ajzen, 1991).

Determinant Factors in Decision-Making

Several key factors influence students' decision-making when choosing a private health higher education institution. These factors interact dynamically, shaping student's perceptions and final choices. **Perceived Value:** Perceived value represents students' assessment of the benefits they receive in comparison to the costs incurred. It includes elements such as the quality of education, career prospects, internship opportunities, and additional services provided by the institution. (Ajzen, I., & Fishbein, 1975). Students tend to choose institutions that offer high perceived value in terms of educational excellence and future job opportunities. **Institution Image:** Institution image encompasses the university's reputation, accreditation, historical performance, and the success stories of alumni. A strong institutional image enhances credibility and trust, making prospective students more inclined to enroll. Universities with recognized faculty members, research contributions, and strategic industry partnerships tend to attract more students. (Schlaegel, C., & Koenig, 2014). **Digital Marketing Innovation:** The effectiveness of online marketing strategies significantly influences students' decision-making. Engaging digital campaigns, interactive social media presence, virtual campus tours, and AI-driven chatbot assistance help prospective students obtain relevant information easily. Institutions that invest in data-driven marketing and personalized student engagement tend to outperform those relying solely on traditional marketing techniques. (Darley, W. K., Blankson, C., & Luethge, 2010).

Competitive Pricing: The affordability and perceived fairness of tuition fees play a vital role in student's choices. Many students consider financial factors, including scholarship availability, installment payment options, and return on investment. A well-structured pricing model that balances affordability with high-quality education increases the institution's attractiveness. **Service Quality:** Service quality acts as a crucial moderating factor that enhances the relationship between competitive pricing and decision-making. It includes dimensions such as reliability (consistency of academic services), responsiveness (prompt assistance from faculty and administration), assurance (trust and credibility), empathy (personalized student support), and tangible aspects (facilities and infrastructure). Universities that prioritize service excellence tend to improve student satisfaction, retention, and overall enrolment rates (Devika, R., Harikrishna, M., & Anjaneyulu, 2020).

METHOD

This study employs a quantitative research approach to analyze the determinant factors influencing students' decision-making in selecting private health higher education institutions, with service quality as a moderating variable. The methodology section details the research design, population and sample, data collection techniques, measurement instruments, and data analysis procedures. (Sugiyono, 2018).

Research Design

The study adopts a descriptive and explanatory research design. (Suhron, 2024). The descriptive aspect aims to map the current trends in student decision-making, while the explanatory aspect seeks to determine causal relationships between perceived value, institution image, digital marketing innovation, competitive pricing, and decision-making, with service quality as a moderating variable. The study uses a sample of 400 respondents, chosen using the Krejcie & Morgan sample size calculation technique for a large population. The target audience consists of both present and potential students enrolled at private health higher education institutions in Central Java, Indonesia. Stratified random sampling is employed to ensure representation across various institutions and demographic segments, such as gender, academic level, and socioeconomic background. (Sugiyono, 2018).

Data Collection Techniques

Primary data were collected through structured online and offline surveys. The questionnaire was designed based on validated scales from previous studies. The survey was distributed through institutional channels and student organizations to ensure broad participation. Measurement Instruments Perceived Value: Measured using a five-item scale adapted from Zeithaml (1988), assessing students' perceptions of the cost-benefit balance (Swaid & Wigand, 2009). Institution Image: Measured using a four-item scale adapted from Aaker (1996), covering reputation, accreditation, and alumni success (Aaker, D. A., & Keller, 1990). Digital Marketing Innovation: Measured using a six-item scale assessing the effectiveness of online engagement, interactive platforms, and virtual experiences. Competitive Pricing: Evaluated through a three-item scale focusing on tuition affordability, scholarship availability, and payment flexibility. Service Quality: Assessed using SERVQUAL dimensions (Parasuraman et al., 1988) covering reliability, responsiveness, assurance, empathy, and tangible factors. Decision-Making: Measured through a four-item scale assessing the influence of the above factors on students' final selection. All responses were recorded using a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) (Parasuraman et al., 2017)

Data Analysis Techniques

Data were analyzed using Structural Equation Modeling (SEM) with Smart PLS software. The analysis was conducted in three main stages: Descriptive Analysis: Examining demographic characteristics and frequency distributions of responses. Measurement Model Evaluation: Assessing convergent and discriminant validity, reliability, and factor loadings. Structural Model Evaluation: Testing hypotheses using path analysis, bootstrapping, and R-squared values to determine the strength of relationships between variables. Moderation Analysis: Examining the moderating role of service quality in the relationship between competitive pricing and decision-making (Sugiyono, 2018).

RESULTS AND DISCUSSION

Structural Model Analysis

The SEM results show that perceived value, digital marketing innovation, and institution image significantly influence students' decision-making ($p < 0.05$). Competitive pricing has a direct effect on decision-making and an indirect effect through other determinant factors. The moderating effect of service quality strengthens the relationship between competitive pricing and decision-making. The R-squared value suggests that these factors collectively explain a substantial proportion of the variance in decision-making. (Sugiyono, 2018).

The Influence of Perceived Value

Perceived value plays a crucial role in students' decision-making processes. Students tend to evaluate the balance between tuition fees, educational quality, and future career opportunities before making a decision. Institutions that offer value-added services such as internship opportunities, career counseling, and job placements significantly enhance students' perceived value, leading to a higher likelihood of enrolment (Zeithaml, 1988). In accordance with other research Perceived value acts as a mediator between living attributes and purchasing behavior. The impact of perceived value on consumers in the e-commerce setting has been confirmed by prior studies by academics; however, the majority of these studies are direct measurements of the impact of perceived value on purchase behavior and do not thoroughly examine the path of influence. In the case of LS e-commerce, the e-commerce streamer serves as a salesperson and an opinion leader, acting as a conduit between the product and the customer. The brand, reputation, and quality of the product are also factors that consumers consider, and the consumer's ultimate purchasing behavior is primarily predicated on their confidence in both the product and the streamer's advice. Nevertheless, consumer confidence in LS e-commerce is frequently discussed as a whole rather than in-depth in the research that is now available. This implies that future LS e-commerce research should concentrate on examining the value that

customers can perceive when they shop in real-time and how that value fosters trust and, eventually, repeat business. (Wu & Huang, 2023).

The Impact of Institution Image

Institution image significantly affects students' perception of educational quality. Universities with a strong reputation, well-known alumni, and accreditation from reputable bodies tend to attract more students. Branding efforts, university rankings, and partnerships with health institutions also contribute to strengthening institution's image (Yoga, I. M. S., Korry, N. P. D. P., & Yulianti, 2019). In other studies, it was shown that people's perceptions of picture search results are influenced by both axes of representation as well as their personal racial and gender identities. Finally, we stress that algorithmic content's varying effects on users with marginalized identities must be taken into account by algorithm designers and auditors. (Metaxa et al., 2021)

Digital Marketing Innovation and Its Effect on Decision-Making

The role of digital marketing innovation in higher education is increasingly prominent. Effective digital campaigns, social media engagement, and user-friendly university websites influence student's perceptions. Institutions that utilize AI-driven chatbots for student inquiries, interactive virtual tours, and informative content marketing strategies can enhance engagement and attract prospective students. According to other research Purchase decisions made by students are positively impacted by the four independent components. Targeting is the most crucial element in students' purchase decisions among the four digital marketing tools that this study uses to represent independent elements. Furthermore, we can see that the evaluation stage has the most influence on students' choices, which may be due to the channel that is resorted to by users who have looked for the product. This user is already familiar with the product and is seeking further details to evaluate its many options and goods before making a final purchase. Furthermore, the least significant influencing element in students' purchase decisions is email marketing as a digital marketing channel (Alhalwachi et al., 2024).

Competitive Pricing and Its Direct and Indirect Influence

Competitive pricing directly influences decision-making, but its impact is also mediated by perceived value, digital marketing, and institution image. Universities that implement flexible payment schemes, scholarships, and tuition assistance programs tend to be more attractive to students. However, pricing alone is not the only determinant; it must be complemented by high-quality service and perceived value, reinforced by other research that the impact of promotional strategy on the SME's marketing performance has been somewhat mediated by competitive advantage. This indicates that a promotional plan helps SMEs get a competitive edge, which boosts their marketing performance. (Yasa et al., 2020)

Moderating Role of Service Quality

Service quality enhances the relationship between competitive pricing and decision-making. High-quality services in terms of faculty expertise, administrative responsiveness, and student support systems contribute to students' positive perceptions. Institutions that provide personalized academic advising, mentorship programs, and efficient administrative processes tend to retain and attract more students. Various additional studies that perceived risk has a moderating effect on trust in online buying and purchase intention. Perceived risk moderates the slope of the association between online shopping trust and purchase intention, indicating that a higher perceived risk strengthens the link. The link between online purchase intention, website quality reputation, and perceived service quality is strongly mediated by trust. By showing how an increase in trust lessens the severity of the impact of perceived risk on online purchase intention, this work advances web-store decision-makers comprehension of the important role that trust plays and its mediating effect on online buying. (Qalati et al., 2021). Research also supports that Customers' perceptions of pricing have a big impact on how they evaluate the quality attributes. Furthermore, a feeling of loyalty might result from client contentment and fulfillment. The relationship between loyalty and fulfillment is mediated by happiness. However, our research showed that there is gender moderation in food consumption as customers' opinions of food quality based on pricing and satisfaction levels based on service quality range considerably across the sexes. Future research will benefit from a deeper comprehension of management and theoretical viewpoints brought forth by this study. (Jang & Lee, 2020).

Model of the Study

Below is the conceptual model representing the relationships among determinant factors influencing decision-making, with service quality as a moderating variable:

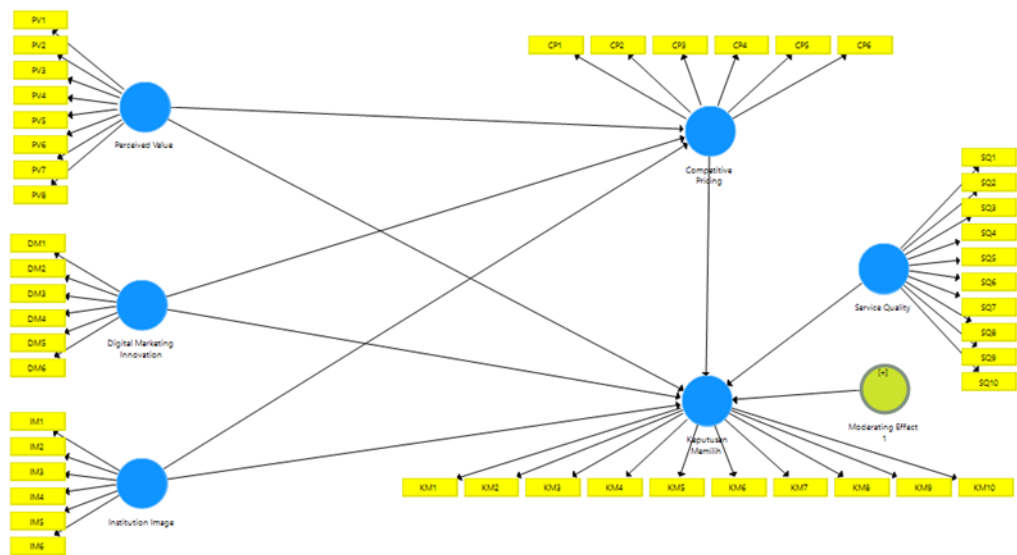


Figure 1. Model determinant factors influencing decision-making

Proposed Model Reconstruction

Based on the findings, we propose a reconstructed model that enhances the decision-making framework by incorporating additional factors such as student engagement and institutional networking.

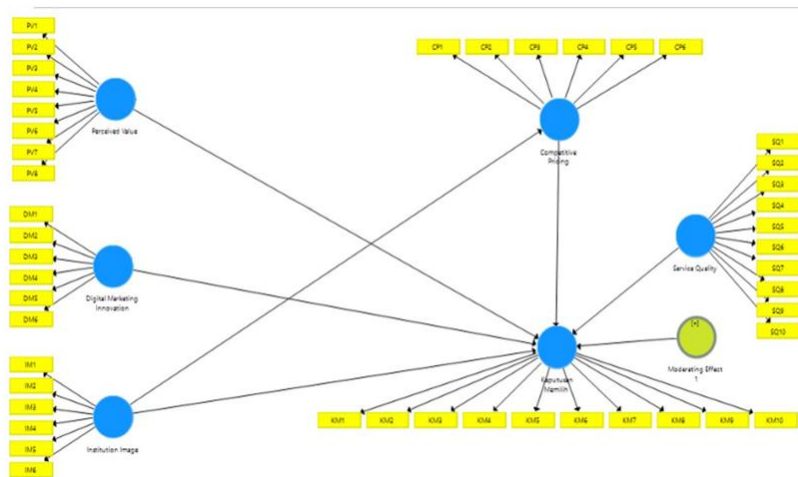


Figure 2. Model decision-making as student engagement and institutional networking

CONCLUSION

This study confirms that perceived value, digital marketing innovation, institution image, and competitive pricing play essential roles in students' decision-making for private health higher education. Furthermore, service quality significantly strengthens the influence of competitive pricing on decision-making.

The findings suggest that universities should enhance their perceived value by improving educational facilities, curriculum quality, and career development programs. A strong institution image should be cultivated through accreditation, partnerships, and alumni success stories. Digital marketing innovation should be utilized effectively through targeted online campaigns, engagement on social media, and interactive content such as virtual campus tours.

Competitive pricing strategies should be structured to provide affordability while maintaining perceived quality, such as through flexible payment options, scholarships, and tuition fee transparency. Additionally, service quality improvements, including responsiveness, reliability, and personalized support, should be prioritized to strengthen student satisfaction and institutional reputation.

These results provide valuable insights for education policymakers and university administrators to refine their marketing and operational strategies, ensuring long-term competitiveness and sustainability in the higher education sector. Future research can explore other moderating variables such as institutional reputation or technological advancements in service delivery. Moreover, a longitudinal study could provide deeper insights into how these factors evolve over time, allowing institutions to adapt more effectively to changing market conditions.

REFERENCES

- [1] Aaker, D. A., & Keller, K. L. (1990). Consumer evaluations of brand extensions. *Journal of Marketing*, 54(1), 27–41. <https://doi.org/0.1177/002224299005400>
- [2] Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological Bulletin*, 82(2), 261.
- [3] Ajzen, I. (1991). *Constructing a TPB questionnaire: Conceptual and methodological considerations*.
- [4] Alhalwachi, L., Alkhatir, N., Bureshaid, B., Danish, F., Eshaq, M., & Taqi, N. (2024). The Effect of Digital Marketing on Purchasing Decisions: A Case Study in Saudi Arabia. *Studies in Systems, Decision and Control*, 537(5), 371–387. https://doi.org/10.1007/978-3-031-62106-2_29
- [5] Butt, S., Raza, A., Siddiqui, R., Saleem, Y., Cook, B., & Khan, H. (2024). Healthcare employment landscape: comparing job markets for professionals in developed and developing countries. *Journal of Work-Applied Management*, 16(1), 84–96. <https://doi.org/10.1108/JWAM-06-2023-0052>
- [6] Cheng, M. (2016). Sharing economy: A review and agenda for future research. *International Journal of Hospitality Management*, 57(1), 60–70.
- [7] Darley, W. K., Blankson, C., & Luethge, D. J. (2010). Toward an integrated framework for online consumer behavior and decision making process: A review. *Psychology & Marketing*, 27(2), 94–116.
- [8] Devika, R., Harikrishna, M., & Anjaneyulu, M. V. L. R. (2020). Influence of psychological factors in mode choice decision making: A structural equation modeling approach. *Transportation Research Procedia*, 48, 2821–2830.
- [9] Jang, H. W., & Lee. (2020). Physical Environment Quality , and the Moderating. *Mdpi*, 9(4), 1–16.
- [10] Kotler, P., & Armstrong, G. (2008). *Prinsip-prinsip pemasaran* (1st & 2nd ed.).
- [11] Lin, C. H., Sher, P. J., & Shih, H. Y. (2005). Past progress and future directions in conceptualizing customer perceived value. *International Journal of Service Industry Management*, 16(4), 318–336.
- [12] Metaxa, D., Gan, M. A., Goh, S., Hancock, J., & Landay, J. A. (2021). An Image of Society. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW1), 1–23. <https://doi.org/10.1145/3449100>
- [13] Parasuraman, A., Details, P. author, & ; Zeithaml, Valerie A; Berry, L. L. (2017). Servqual: A Multiple-Item Scale For Measuring Consumer Perc - ProQuest. In *Journal of retailing* (Vol. 9, Issue 10, pp. 1–13). <https://www.proquest.com/openview/7d007e04d78261295e5524f15bef6837>
- [14] Qalati, S. A., Vela, E. G., Li, W., Dakhan, S. A., Hong Thuy, T. T., & Merani, S. H. (2021). Effects of perceived service quality, website quality, and reputation on purchase intention: The mediating and moderating roles of trust and perceived risk in online shopping. *Cogent Business and Management*, 8(1). <https://doi.org/10.1080/23311975.2020.1869363>
- [15] Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial intent: A meta-analytic test and integration of competing models. *Entrepreneurship Theory and Practice*, 38(2), 291–332.
- [16] Sugiyono, D. (2018). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*.
- [17] Suhron, M. (2024). *Buku Penelitian Epidemiologi Kesehatan Masyarakat*. SABDA EDU PRESS.
- [18] Sumarwan, U., Puspitawati, H., Hariadi, A., Mukti Ali, M., Gazali, M., Hartono, S., & Farina, T. (2011). *Riset pemasaran dan konsumen*.
- [19] Swaid, S. I., & Wigand, R. T. (2009). Measuring the quality of e-service: An empirical study. *Journal of Electronic Commerce Research*, 10(1), 13–28.
- [20] Wu, Y., & Huang, H. (2023). Influence of Perceived Value on Consumers' Continuous Purchase Intention in Live-Streaming E-Commerce—Mediated by Consumer Trust. *Sustainability (Switzerland)*, 15(5). <https://doi.org/10.3390/su15054432>
- [21] Yasa, N. N. K., Ketut Giantari, I. G. A., Setini, M., & Rahmayanti, P. L. D. (2020). The role of competitive advantage in mediating the effect of promotional strategy on marketing performance. *Management Science Letters*, 10(12), 2845–2848. <https://doi.org/10.5267/j.msl.2020.4.024>
- [22] Yoga, I. M. S., Korry, N. P. D. P., & Yulianti, N. M. D. R. (2019). Information technology adoption on Digital Marketing communication channel. *International Journal of Social Sciences and Humanities*, 3(2), 95–104.
- [23] Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2–22.