Analysis of Factors Influencing Purchase Decisions at Gramedia Matraman Bookstore Using Structural Equation

Iqbal Banyu Sunarya
Universitas Diponegoro, Indonesia
Emails: iqbalbanyusunarya@lecturer.undip.ac.id

Abstract

This article aims to test the factors that may influence purchase decisions at Gramedia Bookstore, Matraman. The researchers hypothesize that product diversification and price are related to purchase intention, which will ultimately affect purchase decisions. Data was obtained from 200 respondents who are customers of Gramedia Bookstore, Matraman. The questionnaire contained questions based on respondents' experiences related to the variables of product diversification and price that encourage purchase intention and purchase decisions, measured using a Likert scale. The data were analyzed using a structural equation modeling (SEM) approach with 4 latent variables, where the exogenous variables are product diversification and price, while the endogenous variables are purchase intention, with the final output being purchase decision. The analysis showed that the variables of product diversification and price have a significant influence on purchase decision through the purchase intention variable. Both of these variables are significant towards the inter-variable, which is purchase intention, with Critical Ratios of 2.82 and 32.22 for product diversification, and 4.91 & 32.22 for price. Therefore, purchase intention becomes the right inter-variable to influence the purchase decision variable.

Keywords: product diversification, price, purchase intention, purchase decision, SEM

INTRODUCTION

Today, business development has been characterized by various kinds of competition in all fields. The existence of competition requires every company to always compete in attracting consumers by implementing the right strategy in meeting sales volume targets. Maintaining and even growing new demand is certainly not an easy matter for business people. According to Darmawan & Grenier (2021), marketing work is not how to find the right consumer for a product but how to find the right product for consumers. In this case, companies need to offer products that match consumer demand.

Wandi S. Brata, one of the leaders at Gramedia Group, revealed that book sales in the Gramedia bookstore network continue to decline (Wiralestari & Riski, 2020). He explained that Gramedia as the largest bookstore chain in Indonesia experienced a decline in the publication of new book titles sold in Gramedia bookstores from 2015 to 2020 as presented in Table 1.

Table 1: Number of New Book Titles Published at Gramedia Bookstore 2015 - 2020

Year	Number of Books
2015	15.698
2016	15.881
2017	15.485
2018	14.925
2019	13.822
2020	6.587

Source: https://databoks.katadata.co.id/demografi/statistik/9c243efddd857cd/tren-penerbitan-buku-melemah-bagaimana-kondisi-industrinya

To overcome this, companies must be sensitive in dealing with changes that occur in the business world. Consumer-oriented companies should pay attention to, assess and interpret the desires, attitudes and behavior of consumers (Fabricio et al., 2017). The development of science and technology and increased economic growth have made changes to the needs, desires and tastes of consumers (Gasanov et al., 2020). These changes require companies to adjust their products to the needs and desires of consumers.

The large selection of products offered in the market ultimately makes consumers more discerning in determining which products they will consume. Considerations and demands from consumers for the desired product are also becoming more complex, ranging from product quality to the services provided. Previous research, such as Augello et al. (2023), has highlighted how consumer decision-making involves an integration process, where knowledge and cognition combine to evaluate alternatives and influence purchasing choices. In line with this, studies have also shown that businesses must continuously innovate their products to maintain competitive advantages in the market (Ferreira & Coelho, 2020), but there are instances when product demand declines despite efforts to enhance them.

A business must be managed properly to survive in a competitive environment. To win in the marketplace, businesses need to implement effective marketing strategies that focus on offering better products, lower prices, superior service, or other consumer-centric approaches (Jena, 2023). If a company can deliver what consumers desire, it is likely to attract their interest in purchasing the product. However, the process of decision-making in consumer behavior is influenced by various factors, including knowledge, beliefs, and attention processes, which ultimately shape consumer choices (Augello et al., 2023).

Given the many factors influencing purchasing decisions, this study will focus on visitors to Gramedia Matraman bookstore as a sample (Rahmadania, 2023). While past research has examined factors like price and product diversity in bookstores, this study aims to fill a gap by investigating the specific variables influencing purchasing decisions in this particular setting. The research seeks to determine which factors are most influential in shaping consumer behavior in the context of Gramedia Matraman Bookstore (Lasido, 2023).

By employing Structural Equation Modeling, this study aims to offer deeper insights into the interplay of these factors, contributing new findings to the existing body of literature on consumer decision-making in retail settings.

RESEARCH METHODS

The approach in this study is quantitative by going through the process of interviewing and filling out questionnaires to a number of respondents. Based on the results of filling out the questionnaire, the data collected can be quantified and analyzed using the Structural Equation Model (SEM). This study aims to analyze the causal relationship between independent variables (variables that influence) and dependent variables (variables that are influenced) (Subramanian & Suresh, 2023).

The population who became the sample of respondents in this study were visitors to Gramedia Matraman bookstore who visited within 7 days. The number of respondents who participated in this study amounted to 200 people with the determination of the inclusion requirements by purposive sampling (Campbell et al., 2020). Respondents in this study have represented male and female groups.

The type of data for this research is quantitative data in accordance with the qualitative research methods carried out. The data source used in this research is primary data obtained through distributing questionnaires to 200 selected respondents. The distribution of questionnaires with a list of questions was given to respondents with the intention that respondents could provide answers according to research needs (Brace, 2018).

RESULT AND DISCUSSION

Validity and Reliability Test
Product Diversification Variable

Next, the Validity and Reliability Test is carried out to see how valid an indicator is for the variable.

Table 2: Validity and Reliability Test

Indicator	Tangible		Description
	Loading	Error	
D1	0.77	0.40	Valid
D2	0.92	0.15	Valid
D3	0.63	0.61	Valid
Total	2.32	1.16	
Construct Reliability	0.82		Reliable

The product diversification variable is represented by 3 indicators, namely with the notation D1, D2, and D3. The validity of each indicator can be seen from the indicator loading value. If it is more than 0.5, it means that the indicator is valid to explain the related latent variable (Purwanto

& Sudargini, 2021). In the product diversification variable, it is known that all explanatory indicators are valid.

Price Variable

Table 3. Price Variable

Indicator	Tangible		Description
	Loading	Error	
H1	0.88	0.23	Valid
H2	0.94	0.13	Valid
H3	0.90	0.19	Valid
Total	2.72	0.55	
Construct Reliability	0,930		Reliable

Then, the Price variable is represented by 3 indicators: low price, price according to quality, and commensurate price statistically shows that the indicator is valid with a loading value above 0.5 (Muthmainnah et al., 2023). As for reliability, it is known that the construct reliability (CR) value is 0.930, which means that together the existing indicators are reliable to explain the price variable.

Purchase Intention Variable

Table 4. Purchase Intention Variable

Indicator	Tangible		Description
	Loading	Error	
M1	0.95	0.10	Valid
M2	0.95	0.11	Valid
M3	0.96	0.08	Valid
Total	2.86	0.29	
Construct Reliability	0.965		Reliable

Then, the Purchase Intention variable is represented by 3 indicators: information search, desire to buy, intensity to the store statistically shows that the indicator is valid with a loading value above 0.5. As for reliability, it is known that the construct reliability (CR) value is 0.965, which means that together the existing indicators are reliable to explain the purchase interest variable (Shrestha et al., 2023).

**Purchase Decision Variable**

Table 5. Purchase Decision Variables

Indicator	Tangible		Description
	Loading	Error	
KP1	0.96	0.08	Valid
KP2	0.90	0.16	Valid
KP3	0.82	0.34	Valid

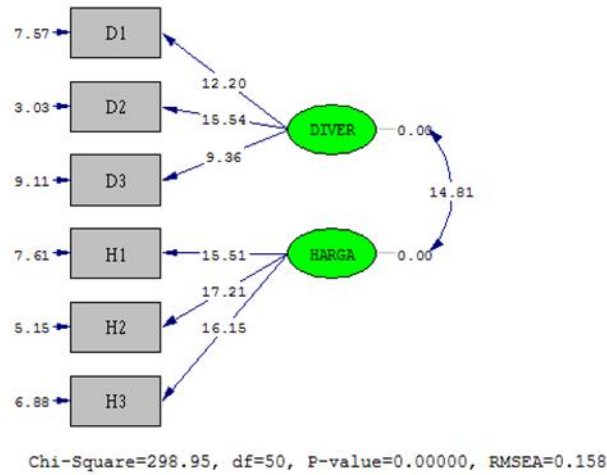| Indicator	Tangible		Description
	Loading	**Error**	
Total	2.68	0.58	
Construct Reliability	0.925		Reliable

Finally, the endogenous variable of purchasing decisions reflected by the indicators of buying in large quantities, satisfied customers and good testimonials statistically shows that the indicators are valid with all loading values above 0.5. Meanwhile, in terms of reliability, it is known that the construct reliability (CR) value is 0.925, which means that together the existing indicators are reliable to reflect the output variable, namely purchasing decisions (Chanda et al., 2025).

Measurement Model Analysis

The X-Model is based on the estimated Standardized Solution and T-values and the results are obtained:
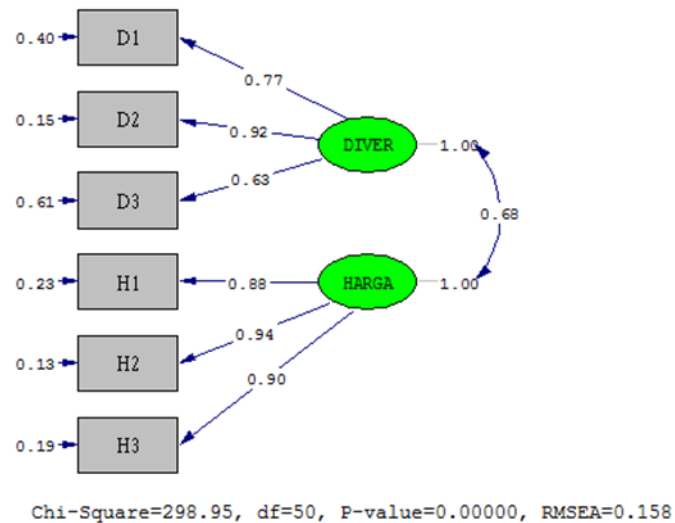
**Figure 1. Measurement Model Analysis**

Chi-Square=298.95, df=50, P-value=0.00000, RMSEA=0.158

Figure 2. Measurement Model Analysis

Table 6. X-Model models based on Standardized Solution estimates and T-values

Indicator	Loading	t-Value	Description
D1	0.77	12.20	Significant
D2	0.92	15.54	Significant
D3	0.63	9.36	Significant

Indicators D1, D2, and D3 are codes for indicators of the latent variable product diversification. The test results show positive significance for the product diversification variable. It can be interpreted that the three indicators are valid and reliable because they have a Critical Ratio above the 1.96 threshold, which is 12.20, 15.54, and 9.36.

Retrieved models Y-Model based on Standardized Solution estimates and T-values and found results:

Chi-Square=298.95, df=50, P-value=0.00000, RMSEA=0.158
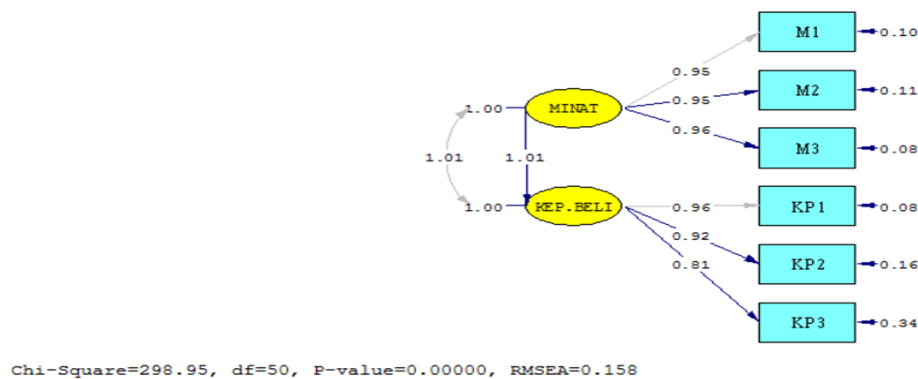
Figure 3. –Model based on Standardized Solution estimates and T-values

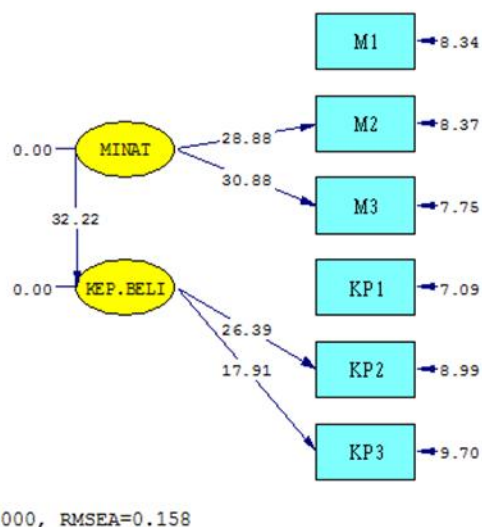Chi-Square=298.95, df=50, P-value=0.00000, RMSEA=0.158

Figure 4. –Model based on Standardized Solution estimates and T-values

Table 7. Y-Model models based on Standardized Solution estimates and T-values

Indicator	Loading	t-Value	Description
M1	0.95	Constraint	Significant
M2	0.95	28.88	Significant
M3	0.96	30.88	Significant

M1, M2, and M3 are codes to describe indicators of intermediate endogenous variables, namely purchase intention. The results show positive significance for the purchase interest variable. This means that the three indicators are not only valid and reliable, but also can reflect the purchase interest variable with a Critical Ratio of 28.88 and 30.88 respectively, but one indicator is found to be a constraint (because it is above the 1.96 threshold).

Model Analysis

The Basic Model was derived based on the estimated Standardized Solution and T-values and the results were obtained:
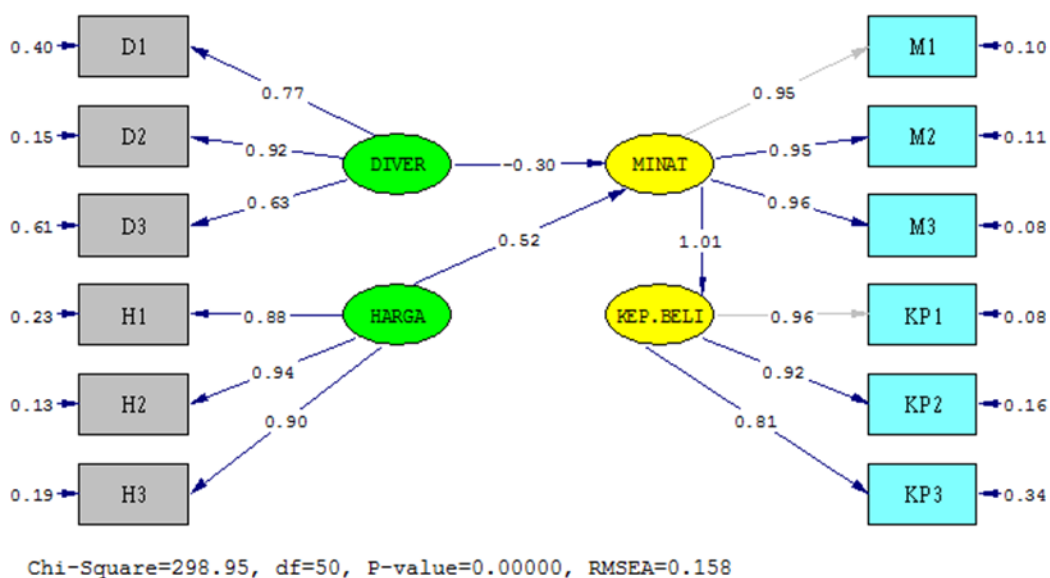
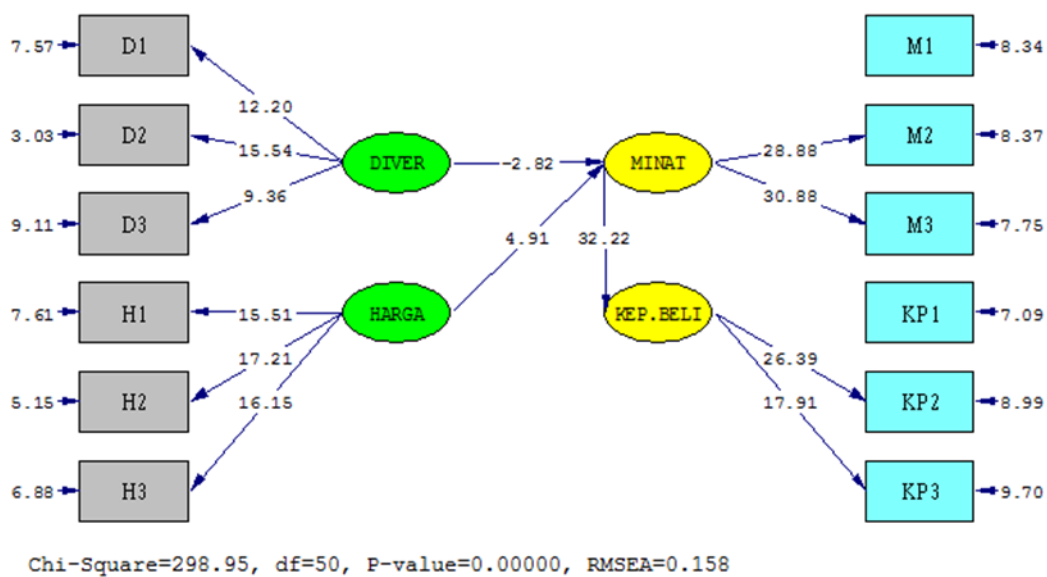Chi-Square=298.95, df=50, P-value=0.00000, RMSEA=0.158

Figure 5. Basic Model

Chi-Square=298.95, df=50, P-value=0.00000, RMSEA=0.158

Figure 6. Basic Model

Hypothesis Test

Table 8. Hypothesis Test

Indicator	Loading	t-Value	Description
Indirect Effect			
Product Diversification→ Purchase Decision	1.01	2.82 and 32.22	Significant
Price→ Purchase Decision	1.01	4.91 and 32.22	Significant

The first hypothesis states that product diversification affects book purchasing decisions. The structural coefficient (path coefficient) or standardized regression weight between product diversification and purchasing decisions shows a value of 1.01 with a significant relationship indicated by the CR (crictical ratio) value of 2.82 and 32.22, which means it is at the threshold of ± 1.96 at the 5% significance level. Therefore, the first hypothesis is proven, namely that product diversification has a positive effect on purchasing decisions (Tarunay & Pratama, 2024).

The second hypothesis for this study states that price has an effect on book purchasing decisions. The structural coefficient (path coefficient) or standardized regression weight between price and purchasing decisions is 1.01 with a significant relationship indicated by the CR (crictical ratio) value of 4.91 and 32.22, which is above the threshold± 1.96 (at the 5% significance level). Therefore, hypothesis two is proven because price has a significant positive effect on purchasing decisions.

CONCLUSION

The hypothesis that product diversification and price are factors that influence purchase intention, which indirectly influences customer purchasing decisions at Gramedia bookstore, was statistically proven. In addition, all indicators in this study proved to be valid and reliable because the construct reliability value is above 0.7. And, both variables (product diversification and price) have a high significance value on purchasing decisions through the intermediate endogenous variable, namely purchase intention. From these results, it is actually still possible to develop other models with new variables, and this research is an indication that product diversification and price are a number of factors that have a strong effect on consumer buying interest which indirectly affects buying decisions, but there are a number of other factors that can be considered such as: store atmosphere, service quality, and other factors that influence directly or indirectly for a purchase decision in a bookstore.

BIBLIOGRAPHY

Augello, A., Città, G., Gentile, M., & Lieto, A. (2023). A storytelling robot managing persuasive and ethical stances via act-r: an exploratory study. *International Journal of Social Robotics*, *15*(12), 2115–2131.

Brace, I. (2018). *Questionnaire design: How to plan, structure and write survey material for effective market research*. Kogan Page Publishers.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, *25*(8), 652–661.

Chanda, R. C., Vafaei-Zadeh, A., Hanifah, H., & Thurasamy, R. (2025). Modeling eco-friendly house purchasing intention: a combined study of PLS-SEM and fsQCA approaches. *International Journal of Housing Markets and Analysis*, *18*(1), 123–157.

Darmawan, D., & Grenier, E. (2021). Competitive advantage and service marketing mix. *Journal of Social Science Studies (JOS3)*, *1*(2), 75–80.

Fabricio, A. C. B., Veiga, C. P. Da, & Marchetti, R. Z. (2017). Measuring consumer-oriented sustainability: A Brazilian perspective. *International Journal of Environment and Sustainable Development*, *16*(3), 257–278.

Ferreira, J., & Coelho, A. (2020). Dynamic capabilities, innovation and branding capabilities and their impact on competitive advantage and SME's performance in Portugal: the moderating effects of entrepreneurial orientation. *International Journal of Innovation Science*, *12*(3), 255–286.

Gasanov, E. A., Zubarev, A. E., & Krasota, T. G. (2020). Digital technologies as a factor for growth of continuous well-being of sovereign consumers in the modern society. *International Scientific Conference" Far East Con"(ISCFEC 2020)*, 1229–1243.

Jena, S. K. (2023). Impact of customer-centric approach and customer dissatisfying cost on supply chain profit under price competition. *Journal of Business & Industrial Marketing*, *38*(11), 2341–2359.

Lasido, N. A. (2023). Landscape Political Economy Media in Kompas Gramedia Group (KGG): A Chomsky's Media Propaganda Analysis. *Potret Pemikiran*, *27*(1), 15–35.

Muthmainnah, A., Heriyadi, H., Pebrianti, W., Ramadania, R., & Syahbandi, S. (2023). The Influence of Price and Product Quality on Customer Satisfaction with Purchase Decision As Mediation Variable In Somethinc Serum Skincare Products In Indonesia. *Jurnal Ekonomi*, *12*(04), 1925–1938.

Purwanto, A., & Sudargini, Y. (2021). Partial least squares structural squation modeling (PLS-SEM) analysis for social and management research: a literature review. *Journal of Industrial Engineering & Management Research*, *2*(4), 114–123.

Rahmadania, F. W. (2023). *Laporan BKD Fitri Wahyu Rahmadania Semester Ganjil 2022-2023*.

Shrestha, R., Kadel, R., & Mishra, B. K. (2023). A two-phase confirmatory factor analysis and structural equation modelling for customer-based brand equity framework in the smartphone industry. *Decision Analytics Journal*, *8*, 100306. https://doi.org/10.1016/j.dajour.2023.100306

Subramanian, N., & Suresh, M. (2023). Green organizational culture in manufacturing SMEs: an analysis of causal relationships. *International Journal of Manpower*, *44*(5), 789–809.

Tarunay, O. I., & Pratama, Y. S. (2024). The Effect of Product Diversification and Brand Equity on Purchase Decisions With Promotion Strategy as a Moderator. *ECo-Buss*, *6*(3), 1382–1394.

Wiralestari, W., & Riski, H. (2020). Factors Affecting the Quality of MSME Financial Reporting. *The 3rd International Conference on Business, Policy, and Social Sciences (ICBPS)*.