

App Quality and Sales Promotion on Purchase Decision Through Customer Satisfaction in Grabfood Users

Cahya Adri Priyana¹, Leonita Siwiyanti², Nurni Arrina Lestari³

¹⁻³ Universitas Muhammadiyah Sukabumi

Article Info

Article history:

Received Aug, 2026

Revised Aug, 2026

Accepted Aug, 2026

Keywords:

App Quality

Sales Promotion

Customer Satisfaction

Purchase Decision

SEM-AMOS

ABSTRACT

The competition for online food delivery services encourages digital companies to improve the quality of applications and promotional strategies to retain consumers. This study aims to analyze the influence of App Quality and Sales Promotion on Purchase Decision through Customer Satisfaction as a mediating variable in GrabFood users in Sukabumi City. The study uses a quantitative approach with the Structural Equation Modeling (SEM) method using AMOS. Data was obtained through a questionnaire to 160 GrabFood users who were selected using purposive sampling techniques. The results of the study show that App Quality and Sales Promotion have a positive and significant effect on Customer Satisfaction. App Quality also has a significant effect on Purchase Decision, while Sales Promotion has no direct effect on Purchase Decision. In addition, Customer Satisfaction has been proven to have a significant effect on Purchase Decision and acts as a mediating variable. This research shows that improving the quality of the application and user satisfaction are important factors in driving the purchase decision of GrabFood services.

This is an open access article under the [CC BY-SA](#) license.



Corresponding Author:

Name: Cahya Adri Priyana

Institution Address: Universitas Muhammadiyah Sukabumi

e-mail: cahyaadripriyana@gmail.com

1. INTRODUCTION

The development of digital technology has significantly changed consumer behavior, including food purchasing activities. One of the major developments is the emergence of online food delivery (OFD) services, which allow consumers to order and receive food through digital platforms. These services provide convenience, efficiency, and flexibility because consumers can complete transactions without visiting restaurants directly. The increasing adoption of digital services indicates that technology has become an

important factor in shaping consumer purchasing behavior [1], [2]

The growth of online food delivery services has also increased competition among digital platforms such as GrabFood, GoFood, and ShopeeFood. Each platform continues to improve application features, promotional strategies, and service experiences to attract and retain users. This competitive environment provides consumers with more alternatives, causing companies to focus not only on transaction convenience but also on creating superior digital experiences that encourage continued usage [3], [4].

GrabFood is one of the leading online food delivery platforms in Indonesia. However, strong market competition creates challenges in maintaining consumer purchasing decisions. Although GrabFood provides various features and promotional programs, changes in transaction performance indicate that companies need to continuously evaluate factors influencing consumer behavior. Application performance, promotional effectiveness, and user satisfaction are important aspects that may determine whether consumers continue choosing a digital service platform [5], [6].

In the context of digital consumer behavior, purchase decisions are influenced by several evaluations, including application convenience, transaction security, promotional benefits, and previous service experiences. Consumers do not only consider economic benefits but also evaluate the overall value obtained during service usage [7], [8]. Therefore, understanding the relationship between application quality, sales promotion, customer satisfaction, and purchase decision is important for explaining consumer behavior in online food delivery services.

Previous studies have examined the relationship between digital service quality, promotional strategies, customer satisfaction, and purchase decisions. However, most studies have focused on direct relationships between service quality or promotion and purchasing decisions [9], [10]. Research that integrates application quality and sales promotion with customer satisfaction as a mediating mechanism remains limited, particularly in the context of GrabFood users in regional areas such as Sukabumi City.

The research gap of this study lies in the limited understanding of how technological factors and marketing strategies jointly influence consumer decisions through satisfaction mechanisms. Consumer characteristics and service experiences may differ across regions, resulting in different behavioral patterns. Therefore, this study provides a more specific analysis of GrabFood consumer behavior in Sukabumi City [11], [12].

The novelty of this research is the development of a model that examines the mediating role of Customer Satisfaction in the relationship between App Quality, Sales Promotion, and Purchase Decision. This approach emphasizes that consumer decisions are not only influenced by technological and marketing factors directly but also through positive experiences formed during service usage [13], [14], [15].

Based on this background, this study aims to analyze the influence of App Quality and Sales Promotion on Purchase Decision through Customer Satisfaction among GrabFood users in Sukabumi City. The hypotheses proposed in this study are:

H1: App Quality has a positive and significant effect on Customer Satisfaction.

H2: Sales Promotion has a positive and significant effect on Customer Satisfaction.

H3: App Quality has a positive and significant effect on Purchase Decision.

H4: Sales Promotion has a positive and significant effect on Purchase Decision.

H5: Customer Satisfaction has a positive and significant effect on Purchase Decision.

H6: Customer Satisfaction mediates the influence of App Quality and Sales Promotion on Purchase Decision.

2. LITERATURE REVIEW

The literature review provides the theoretical foundation for explaining the relationships between variables in this study. This section discusses relevant concepts and previous theoretical perspectives related to App Quality, Sales Promotion, Customer Satisfaction, and Purchase Decision. The discussion aims to explain how each variable influences consumer behavior in digital service environments, particularly in the context of online food delivery platforms. Based on these theoretical foundations, the relationships between variables are developed to support the proposed research model and hypotheses.

2.1 App Quality

App Quality refers to the ability of a digital application to provide effective, reliable, and convenient services for users. According to DeLone and McLean (2003), system quality is one of the main dimensions of information system success because it reflects system performance, reliability, ease of use, and functionality. In digital service platforms such as GrabFood, application quality can be evaluated through ease of navigation, system stability, information accuracy, and transaction security [13].

A high-quality application can improve user experience because consumers are able to complete transactions more efficiently. When users perceive that an application provides convenience and reliable performance, they tend to develop positive evaluations toward the service [16], [17]. Therefore, App Quality is expected to influence Customer Satisfaction and Purchase Decision.

2.2 Sales Promotion

Sales Promotion is a marketing strategy that provides short-term incentives to encourage consumer transactions. Kotler and Keller (2016) explain that sales promotion includes various activities such as discounts, vouchers, cashback, bonuses, and special offers designed to increase consumer interest and perceived value [1], [18].

In online food delivery services, promotional strategies are commonly used to attract consumers and increase transaction frequency. Effective promotions can create additional

benefits for consumers, which may increase satisfaction [19]. However, promotional incentives alone may not guarantee purchasing decisions because consumers also evaluate service quality and overall experience.

2.3 Customer Satisfaction

Customer Satisfaction represents consumers' evaluation after comparing their expectations with the actual experience received from a product or service. Huse [20] explains that satisfaction occurs when service performance meets or exceeds consumer expectations.

In online food delivery services, satisfaction is influenced by various aspects, including application quality, transaction convenience, delivery experience, and perceived benefits. Satisfied consumers tend to have stronger intentions to reuse services and make repeat purchases [3], [5]. Therefore, Customer Satisfaction plays an important role in explaining consumer purchasing behavior.

2.4 Purchase Decision

Purchase Decision refers to the process through which consumers evaluate alternatives and determine whether to choose a particular product or service. According to Kotler and Keller [21], purchasing decisions are influenced by consumer perceptions regarding value, trust, experience, and satisfaction [22].

In digital services, consumers consider multiple factors before completing transactions, including application performance, promotional attractiveness, and previous

experiences. Consumers who perceive high value and satisfaction are more likely to continue using the service and make future purchases.

2.5 Research Framework (10pt)

Based on previous theories and empirical studies, this research proposes that App Quality and Sales Promotion influence Purchase Decision both directly and indirectly through Customer Satisfaction. Customer Satisfaction is positioned as a mediating variable because consumer experience plays an important role in transforming technological quality and marketing strategies into purchasing behavior.

3. METHODS

This study uses a quantitative approach with an explanatory research design that aims to test the causal relationship between variables through hypothesis testing based on numerical data from respondents [3], [23]. This study analyzes the influence of App Quality (X1) and Sales Promotion (X2) on Purchase Decision (Y) through Customer Satisfaction (Z) as a mediating variable for GrabFood users in Sukabumi City. Model testing was carried out using the Structural Equation Modeling (SEM) method with the help of AMOS to analyze the direct, indirect, and intervariable influences simultaneously [11], [24], [25].

The object of this research is the GrabFood service, which is an online food delivery service on the Grab application which is the focus of a study on consumer behavior of users in Sukabumi City. This study analyzes the factors that affect purchase decisions through the variables App Quality (X1) as application quality, Sales Promotion (X2) as a promotion strategy, Customer Satisfaction (Z) as a mediation variable, and Purchase Decision (Y) as a dependent variable.

The population in this study is all users of GrabFood services in Sukabumi City who have experience using the application and making transactions. The research sample consisted of 160 GrabFood user respondents who were selected based on certain criteria and had met the analysis needs using the Structural Equation Modeling (SEM) method. The respondents were selected because they were able to provide a first-hand experience assessment of the quality of the application, promotions, satisfaction, and purchase decisions of GrabFood services.

The sampling technique in this study uses purposive sampling, which is the selection of respondents based on certain criteria [26], [27]. Respondents were selected from users who had used and made transactions through GrabFood services and were willing to provide information about the user experience. This technique is used so that the data obtained is in accordance with the research objectives and is able to describe consumer perception of the variables App Quality, Sales Promotion, Customer Satisfaction, and Purchase Decision.

The research instrument uses a questionnaire that is compiled based on indicators from the variables App Quality, Sales Promotion, Customer Satisfaction, and Purchase Decision with reference to relevant theories and previous research. The questionnaire was distributed online to GrabFood users in Sukabumi City to obtain data on respondents' perceptions of application quality, promotions, satisfaction, and purchase decisions.

The research variable consists of App Quality (X1) which measures the quality of applications based on ease of use, system functionality, information quality, and system security (DeLone & McLean, 2003). Sales Promotion (X2) measures promotional activity through indicators of rebates, cashback, additional bonuses, and special offers (Kotler & Keller, 2016). Customer Satisfaction (Z) measures the level of user satisfaction based on the fulfillment of expectations, satisfaction with prices and services, and emotional satisfaction (Oliver, 2010; Kotler & Keller, 2016). Meanwhile,

Purchase Decision (Y) measures consumer decisions through indicators of confidence in choosing services, purchase decisions, usage priorities, and repurchase intent [21], [28].

The study measured using the Likert scale to convert respondents' perceptions into statistically analyzeable numerical data. Data analysis was carried out using the Structural Equation Modeling (SEM) method with the help of AMOS software to test the relationship between variables simultaneously and determine the direct and indirect influences. The analysis stages include testing measurement models through Confirmatory Factor Analysis (CFA) and structural models to test the relationships between variables based on research hypotheses.

The research test included a validity test using the Standardized Loading Factor (SLF) to ensure the ability of the indicator to explain the construct, as well as a reliability test through Construct Reliability (CR) and Average Variance Extracted (AVE) values to determine the consistency of variable measurements. Furthermore, Confirmatory Factor Analysis (CFA) and Goodness of Fit testing were carried out to assess the suitability of the research model. Hypothesis testing was carried out based on the Critical Ratio (C.R.) value > 1.96 and Probability (P) < 0.05 on the AMOS output to determine the direct, indirect, and total influence between variables.

4. RESULTS AND DISCUSSION

4.1 Characteristics of Respondents

This study involved as many as 160 respondents who used GrabFood in

Sukabumi City who had experience using the application and making transactions. The characteristics of the respondents showed that GrabFood users consisted of different groups based on gender, age, occupation, and frequency of use. Based on gender, male and female respondents had a balanced number, which was 50% each. This shows that online food delivery services have been widely used by various groups of users.

Based on age, respondents were dominated by the age group over 30 years old at 31.25%, followed by 24.38% by 24.38% by 26–30 years old, 23.75% by 17–20 years old, and 21–25 years old by 20.63%. Based on work, the majority of respondents came from the entrepreneurial group at 41.88%, students at 32.50%, and employees at 25.63%. Meanwhile, the frequency of use shows that all respondents are active users with varying intensity of use. These characteristics show that respondents have sufficient experience in assessing the quality of the application, promotions, satisfaction, and purchase decisions of GrabFood services.

4.2 Measurement Model Analysis

Measurement Model Analysis is carried out to determine the ability of indicators to explain each research construct. This test was carried out using Confirmatory Factor Analysis (CFA) with the help of AMOS to ensure that the indicators in the App Quality, Sales Promotion, Customer Satisfaction, and Purchase Decision variables have met the model feasibility criteria before structural testing is carried out.

4.2.1 Confirmatory Factor Analysis (CFA) Eksogen

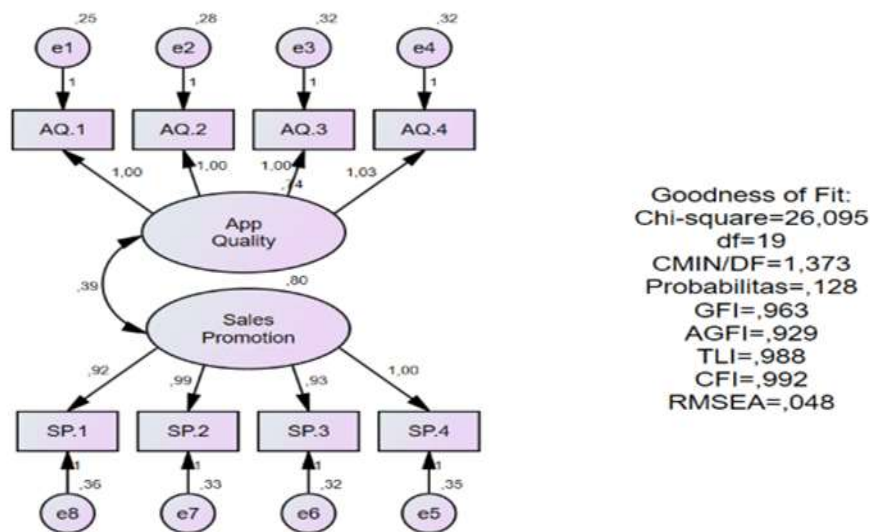


Figure 1. Confirmatory Factor Analysis of Exogenous Variables

Based on Figure 1, the exogenous CFA results show that the indicators in the **App Quality (X1)** and **Sales Promotion (X2) variables** are able to explain the respective constructs well. The value of the loading factor in each indicator shows a strong contribution in shaping the research variable. This shows

that the quality of the application and sales promotion already have appropriate measurement indicators to use in the research model.

The feasibility of the exogenous CFA model was further tested using several *Goodness of Fit* indicators presented in Table 2.

Table 2. Exogenous Variable CFA Model Feasibility Test Analysis Output

No	Goodness of Fit	Cut off Value	Analysis Results	Remarks
1	Chi-square	<(df=0,05)	26,095	Fit
2	CMIN/DF	<2,00	1,373	Fit
3	Probability	>0,05	,128	Fit
4	GFI	>0,90	,963	Fit
5	AGFI	>0,90	,929	Fit
6	TLI	>0,90	,988	Fit
7	CFI	>0,95	,992	Fit
8	RMSEA	<0,08	,048	Fit

Source: Data Processed using AMOS (2026)

4.2.2 Confirmatory Factor Analysis (CFA)

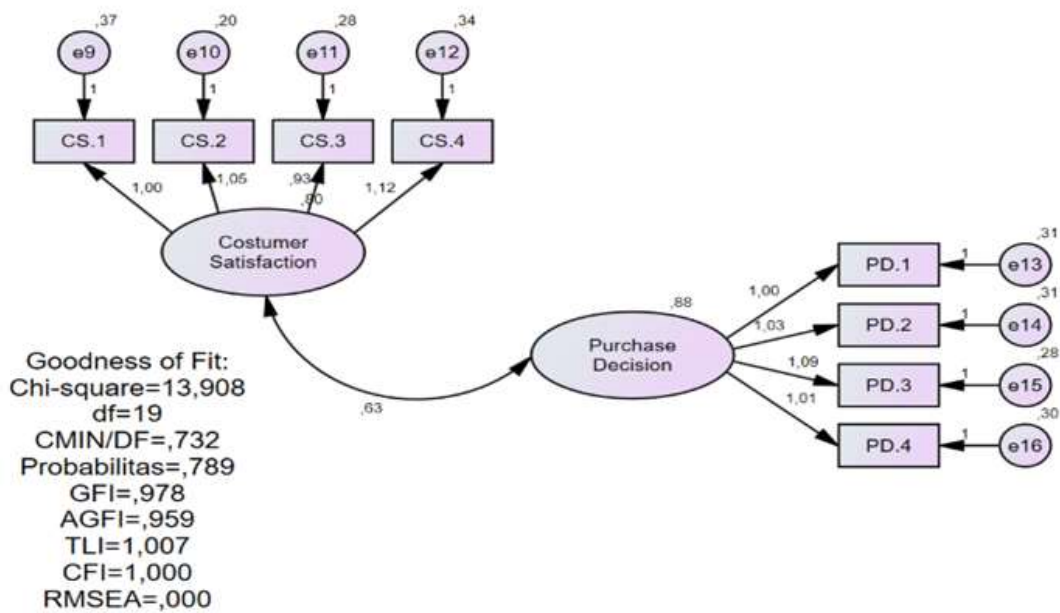


Figure 2. Confirmatory Factor Analysis of Endogenous Variables

Based on Figure 2, the results of endogenous CFA show that the indicators on the variables Customer Satisfaction (Z) and Purchase Decision (Y) have a strong relationship in explaining the research construct. This shows that consumer satisfaction indicators and purchase decisions

have been able to reflect the perception of GrabFood users.

Feasibility testing of the endogenous CFA model is carried out through the Goodness of Fit indicator presented in Table 3.

4.2.3 Endogenous Variable CFA Model Feasibility Test Analysis Output

No	Goodness of Fit	Cut off Value	Analysis Results	Remarks
1	Chi-square	<(df=0,05)	13,908	Fit
2	CMIN/DF	<2,00	,732	Fit
3	Probability	>0,05	,789	Fit
4	GFI	>0,90	,978	Fit
5	AGFI	>0,90	,959	Fit
6	TLI	>0,90	1,007	Fit
7	CFI	>0,95	1,000	Fit
8	RMSEA	<0,08	,000	Fit

Source: Data Processed using AMOS (2026)

Based on Table 3, all Goodness of Fit values in the endogenous CFA model have met the model acceptance criteria. These results show that the variables Customer Satisfaction and Purchase Decision have valid indicators in explaining the research construct. Thus, the measurement model has met the requirements to proceed at the validity, reliability, and structural model testing stages.

4.3 Validity and Reliability Analysis

Validity and reliability testing is carried out to ensure that the indicators used in the study are able to measure constructs appropriately and consistently. Validity testing was carried out through the Standardized Loading Factor (SLF) value, while reliability testing was carried out by looking at Construct Reliability (CR) and Average Variance Extracted (AVE) values. An

indicator is declared valid if it has an SLF value that meets the acceptance criteria, while

a construct is declared reliable if it has a CR value of > 0.70 and AVE > 0.50 .

Table 4. Construct Validity and Reliability

Variable	Indicator Loading (SLF)	Construct Reliability (CR)	Average Variance Extracted (AVE)	Result
App Quality	0.843 – 0.861	0.912	0.723	Reliable
Sales Promotion	0.816 – 0.838	0.897	0.686	Reliable
Customer Satisfaction	0.807 – 0.892	0.909	0.715	Reliable
Purchase Decision	0.844 – 0.877	0.916	0.731	Reliable

Source: Data Processed using AMOS (2026)

Based on Table 4, all indicators in the research variables have a Standardized Loading Factor (SLF) value in the range of 0.807 to 0.892. This value shows that all indicators have a good ability to explain their respective constructs. The App Quality variable has a loading factor value of 0.843–0.861, Sales Promotion of 0.816–0.838, Customer Satisfaction of 0.807–0.892, and Purchase Decision of 0.844–0.877. Thus, all indicators are declared to meet the criteria of convergent validity.

The results of the reliability test showed that all variables had a Construct Reliability (CR) value above the minimum limit of 0.70. The highest CR value was found in the Purchase Decision variable of 0.916, followed by App Quality of 0.912, Customer Satisfaction of 0.909, and Sales Promotion of 0.897. These results show that all indicators have a good level of consistency in measuring research constructs.

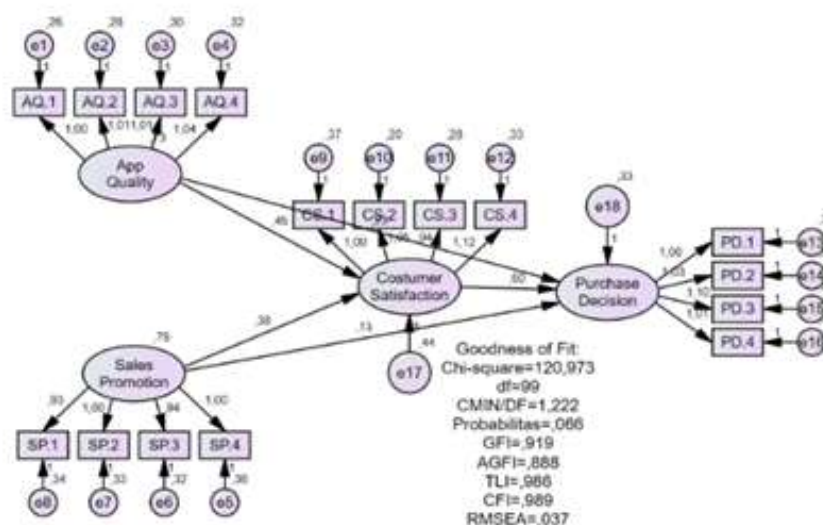


Figure 3. Full Structural Equation Modeling Model Using AMOS

Source: Data Processed using AMOS (2026)

The Average Variance Extracted (AVE) value on all variables also shows results that meet the criteria, which are above 0.50. The Purchase Decision variable has an AVE value of 0.731, App Quality of 0.723, Customer Satisfaction of 0.715, and Sales

Promotion of 0.686. This shows that the research construct is able to explain most of the variance of its constituent indicators.

Based on the results of the validity and reliability tests, all research variables, namely App Quality, Sales Promotion,

Customer Satisfaction, and Purchase Decision, have met the requirements of the model measurement. Thus, the indicators used are declared valid and reliable so that they can be continued at the stage of structural model analysis using Structural Equation Modeling (SEM).

4.4 Structural Model Analysis

Structural Model Analysis is carried out to test the relationship between the overall research variables based on the model that has been built. This test aims to determine the structural relationship between App Quality (X1), Sales Promotion (X2), Customer Satisfaction (Z), and Purchase Decision (Y). The structural model was tested using the Structural Equation Modeling (SEM) method with the help of AMOS to see the direct and

indirect influence between the research variables.

Based on Figure 3, the SEM model shows the relationship between research constructs, namely the influence of App Quality and Sales Promotion on Customer Satisfaction, as well as the influence of these three variables on Purchase Decision. In addition, this model also describes the role of Customer Satisfaction as a mediating variable that explains the relationship between independent variables and GrabFood users' purchasing decisions.

The feasibility of the structural model was then tested using several indicators of Goodness of Fit to determine the suitability between the research model and the empirical data obtained from the respondents.

Table 5. Goodness of Fit Test Full SEM Model

No	Goodness of Fit	Cut off Value	Analysis Results	Results
1	Chi-square	<(df=0,05)	120,973	Fit
2	CMIN/DF	<2,00	1,222	Fit
3	Probability	>0,05	,066	Fit
4	GFI	>0,90	,919	Fit
5	AGFI	>0,90	,888	Fit
6	TLI	>0,90	,986	Fit
7	CFI	>0,95	,989	Fit
8	RMSEA	<0,08	,037	Fit

Source: Data Processed using AMOS (2026)

Based on Table 5, the test results show that the SEM model has met most of the Goodness of Fit criteria. The CMIN/DF value of 1.222 and the Probability of 0.066 indicate that the model has a good level of compatibility with the research data. In addition, the GFI value of 0.919, TLI of 0.986, CFI of 0.989, and RMSEA of 0.037 have met the criteria for model acceptance.

Although the AGFI value of 0.888 is slightly below the ideal limit, the model as a whole is still acceptable as most of the Goodness of Fit indicators show results that meet the criteria. Thus, Full Structural Equation Modeling (SEM) in this study was declared feasible to be used to test the relationship between App Quality, Sales Promotion, Customer Satisfaction, and

Purchase Decision variables in GrabFood users in Sukabumi City.

4.5 Hypothesis Testing

Hypothesis testing was carried out to determine the causal relationship between variables in the research model, namely the influence of App Quality, Sales Promotion, Customer Satisfaction, and Purchase Decision. The test was carried out using the Regression Weight value on the AMOS output by looking at the Critical Ratio (C.R.) and Probability (P-value) values. The hypothesis is stated to be accepted if the C.R. value is > 1.96 and the P value is < 0.05, which shows a significant influence between the study variables.

Table 8. Regression Weight

	Estimate	S.E.	C.R.	P	Remark
Costumer_Satisfaction < --- App_Quality	,446	,086	5,182	***	Accepted
Costumer_Satisfaction < --- Sales_Promotion	,378	,082	4,631	***	Accepted
Purchase_Decision < --- App_Quality	,226	,084	2,695	,007	Accepted
Purchase_Decision < --- Sales_Promotion	,132	,079	1,681	,093	Rejected
Purchase_Decision < --- Costumer_Satisfaction	,595	,096	6,231	***	Accepted

Source: AMOS Output Processed Data (2026)

Based on Table 8, the test results show that App Quality has a positive and significant effect on Customer Satisfaction with an estimated value of 0.446, a C.R. value of 5.182, and a P< value of 0.001. These results show that the better the quality of the GrabFood application, the higher the level of user satisfaction. These findings support the theory of DeLone and McLean (2003) who explain that system quality is an important factor in the success of technology-based services because it is able to provide convenience, reliability, and convenience for users. In the context of GrabFood, an application that is easy to use, has clear information, a stable system, and good transaction security can improve the positive user experience and thus shape consumer satisfaction. Thus, H1 that states that App Quality has a positive and significant effect on Customer Satisfaction is accepted.

Furthermore, the results of the study showed that Sales Promotion had a positive and significant effect on Customer Satisfaction with an estimated value of 0.378, a C.R. value of 4.631, and a P< value of 0.001. These results show that the more attractive the promotional program provided by GrabFood, the higher the user satisfaction rate. This finding is in line with the concept of Kotler and Keller (2016) which states that sales promotion is a marketing strategy that provides incentives to consumers to increase interest and perceived value in a product or service. Programs such as vouchers, discounts, cashback, and various special offers are able to provide additional benefits for consumers so as to increase satisfaction after using services. Thus, H2 that states that Sales Promotion has a positive and significant effect on Customer Satisfaction is accepted.

In the relationship between App Quality and Purchase Decision, the test results showed a positive and significant influence with an estimated value of 0.226, a C.R. value of 2.695, and a P value of 0.007. These results show that the quality of the application is one of the factors that influence consumers' decisions to use GrabFood. Consumers tend to choose digital services that provide easy access, a simple transaction process, and a trustworthy system. These findings reinforce the view of DeLone and McLean (2003) that a good quality of information systems can increase user acceptance of a technology. Therefore, the better the quality of the GrabFood app, the more likely consumers are to make a purchase decision. Thus, H3 that states that App Quality has a positive and significant effect on the Purchase Decision is accepted.

In contrast to the previous variable, the test results showed that Sales Promotion did not have a significant effect on the Purchase Decision with an estimated value of 0.132, a C.R. value of 1.681, and a P value of 0.093. Although it has a positive influence direction, the value does not meet the significance criteria. These results show that the promotions provided by GrabFood are not strong enough to directly drive consumer purchase decisions. This condition shows that consumers not only consider the price factor or promotional advantages, but also pay attention to other factors such as the quality of the app, the user experience, and the level of satisfaction. This finding is in accordance with the concept of Kotler and Keller (2016) that the purchase decision is a process of evaluating various factors before consumers make a choice. Thus, H4 which states that Sales Promotion has a positive and significant effect on the Purchase Decision is rejected.

The results of the last test showed that Customer Satisfaction had a positive and significant effect on Purchase Decision with an estimated value of 0.595, a C.R. value of 6.231, and a $P < 0.001$. The estimated value is the biggest influence in the research model, showing that consumer satisfaction is the dominant factor in shaping GrabFood users' purchasing decisions. These results support Oliver's (2010) theory which explains that customer satisfaction is the result of consumer evaluation after comparing expectations with the experience received. Consumers who are satisfied with the service tend to have a greater tendency to re-make transactions. Thus, H5 that states that Customer Satisfaction has a positive and significant effect on the Purchase Decision is accepted.

Based on the overall results of the hypothesis testing, it can be concluded that four research hypotheses are accepted and one hypothesis is rejected. The results show that the main factor that drives GrabFood users' purchasing decisions is consumer

satisfaction, while the quality of the application plays a supporting factor that improves the user experience. Meanwhile, sales promotion is more effective in improving purchasing decisions if it is able to create consumer satisfaction first. These findings reinforce that in digital services, companies need to focus on improving the overall user experience, rather than relying solely on promotional strategies.

4.6 Direct, Indirect, and Total Effects

Direct Effect, Indirect Effect, and Total Effect analysis was carried out to determine the magnitude of the influence between variables in the research model in more depth. This analysis aims to see the direct influence of App Quality (X1) and Sales Promotion (X2) on Purchase Decision (Y), as well as to determine the role of Customer Satisfaction (Z) as a mediation variable. This effect test is carried out based on the Standardized Effects value on the AMOS output.

Table 9. Standardized Direct Effects

	Direct Effect
App Quality → Customer Satisfaction	0,457
Sales_Promotion → Costumer_Satisfaction	0,403
App_Quality → Purchase_Decision	0,221
Sales_Promotion → Purchase Decision	0,134
Costumer_Satisfaction → Purchase Decision	0,567

Source: AMOS Output Processed Data (2026)

Based on Table 9, the results of the analysis show that Customer Satisfaction has the largest direct influence on Purchase Decision with a value of 0.567. This shows that user satisfaction is the main factor that drives the decision to purchase GrabFood services. Consumers who have a positive experience while using the app, from the ease of transactions to the quality of service received, have a higher tendency to make a repurchase. App Quality has a direct influence on Customer Satisfaction of 0.457, while Sales

Promotion has a direct influence of 0.403. These results show that the quality of the application and promotional strategies provided by GrabFood are able to increase user satisfaction. Meanwhile, the direct influence of App Quality on Purchase Decision of 0.221 shows that application quality is also able to drive direct purchase decisions. In contrast to Sales Promotion, which only has a direct influence of 0.134 on Purchase Decision, so it shows a lower influence than other factors.

Table 10. Standardized Indirect Effects Relationship

	Indirect Effect
App Quality → Customer Satisfaction → Purchase_Decision	0,259

Sales_Promotion → Costumer_Satisfaction → Purchase_Decision	0,229
---	-------

Source: AMOS Output Processed Data (2026)

Based on Table 10, the results of the analysis show that App Quality has an indirect influence on Purchase Decision through Customer Satisfaction of 0.259. This shows that the quality of the GrabFood application is not only able to influence purchasing decisions directly, but also through increased user satisfaction. The better the quality of the application, such as ease of use, system reliability, and convenience of transactions, the higher the customer satisfaction which ultimately drives purchase decisions.

Sales Promotion has an indirect influence on Purchase Decision through Customer Satisfaction of 0.229. These results show that promotions such as vouchers, discounts, and cashback will be more effective in improving purchasing decisions if they are able to create satisfaction for users. This finding strengthens the role of Customer Satisfaction as a mediating variable, according to Oliver (2010) who explains that consumer satisfaction is formed from the evaluation of user experience and can influence subsequent purchase behavior.

Table 11. Standardized Total Effects

	Total Effect
App Quality → Purchase_Decision	0,480
Sales_Promotion → Purchase_Decision	0,363
Customer Satisfaction → Purchase_Decision	0,567

Source: AMOS Output Processed Data (2026)

Based on Table 11, the results of the analysis show that Customer Satisfaction has the largest total influence on Purchase Decision at 0.567. This shows that user satisfaction is a major factor in shaping the purchase decision of GrabFood services. In addition, App Quality has a total influence of 0.480, which shows that app quality plays an important role in influencing purchase decisions both directly and through increased consumer satisfaction. This finding is in line with DeLone and McLean (2003) that the quality of information systems can shape the user experience in the use of technology.

Sales Promotion has a total effect of 0.363 on Purchase Decision. Although the direct influence of promotion on purchase decisions is insignificant, its effect increases when it comes to Customer Satisfaction. These results show that promotional strategies are more effective if they are able to create a positive experience for users. Overall, Customer Satisfaction has been proven to play a role as a mediating variable that strengthens the influence of App Quality and Sales Promotion on GrabFood users' purchase decisions.

4.7 Discussion of Research Findings

The discussion of the research was carried out by linking the results of the hypothesis test with the theory used and the relevant previous research. The results of the study show that technology factors through App Quality, marketing strategies through Sales Promotion, and consumer experience through Customer Satisfaction have a role in shaping the Purchase Decision of GrabFood users in Sukabumi City.

4.7.1 The Effect of App Quality on Customer Satisfaction

The results of the study showed that App Quality had a positive and significant effect on Customer Satisfaction with an estimated value of 0.446, a C.R. value of 5.182, and a P< value of 0.001. These results show that the better the quality of the GrabFood application, the higher the level of user satisfaction. The quality of the application, which includes ease of use, system speed, clarity of information, and transaction security, is able to provide a better user experience for consumers

These findings support Fine and Chernonog [13] theory regarding the success of information systems which explain that system quality is an important factor in shaping user satisfaction. A system that has good performance will increase the convenience of users in carrying out digital activities. In the context of GrabFood, an application that is easy to understand and able to provide accurate menu, price, location, and transaction process information can increase consumers' positive perception of the service.

The results of this study are also in line with previous research which shows that the quality of digital applications has an influence on the satisfaction of users of technology-based services. Users tend to feel satisfied when the application is able to provide convenience, efficiency, and a transaction experience that meets expectations. Thus, improving the quality of the application is one of the important strategies for GrabFood in maintaining consumer satisfaction [13], [14], [15].

4.7.2 The Effect of Sales Promotion on Customer Satisfaction

The results of the study showed that Sales Promotion had a positive and significant effect on Customer **Satisfaction** with an estimated value of 0.378, a C.R. value of 4.631, and a $P < 0.001$. These results show that the promotional programs provided by GrabFood are able to increase user satisfaction. Promotions in the form of vouchers, discounts, cashback, and special offers provide added value for consumers so as to improve the experience of using services.

This finding is in accordance with the concept of Kotler and Keller [21] who explain that sales promotion is a marketing strategy that aims to provide incentives to consumers to increase interest and perceived value in a product or service. When consumers get economic benefits from the promotions provided, the level of satisfaction with the service can also increase.

The results of this study reinforce previous research that found that sales promotion has a positive relationship with

customer satisfaction. Consumers consider not only the product or service received, but also the additional benefits obtained during the transaction process. Therefore, promotional strategies that are relevant to user needs can be a supporting factor in creating GrabFood consumer satisfaction [29], [30].

4.7.3 The Influence of App Quality on Purchase Decision

The results showed that App Quality had a positive and significant effect on Purchase Decision with an **estimated** value of 0.226, a C.R. value of 2.695, and a P value of 0.007. These results show that the quality of the application is one of the factors that influence consumers' decisions in choosing and using GrabFood services.

Based on the theory of Fine and Chernonog [13], a good system quality will increase user acceptance of technology because users feel the benefits and ease of accessing **services**. In online food delivery services, consumers will be more confident in making purchases if the application is able to provide a simple ordering process, clear information, and secure transactions.

These findings are in line with previous research that states that application quality has an influence on decisions to use digital services. Consumers in the digital environment tend to evaluate before transactions by considering the experience of using the application. Therefore, the quality of the GrabFood application is a factor that can increase consumer confidence in making purchase decisions [19], [31].

4.7.4 The Influence of Sales Promotion on Purchase Decision

The results showed that Sales Promotion did not have a significant effect on Purchase Decision with an estimated value of 0.132, a C.R. value of 1.681, and a P value of 0.093. These results show that the promotions provided by GrabFood have not been able to directly drive consumer purchase decisions.

These findings show that consumers do not only consider promotional factors in determining purchasing decisions. While

discounts, cashback, and vouchers can attract consumers' attention, the final decision is still influenced by other factors such as app quality, user experience, and satisfaction with the service. This is in accordance with the concept of Kotler and Keller [21] who explain that the purchase decision is a process of evaluating various alternatives before consumers make a choice.

The results of this study are different from some previous studies that found that sales promotions can directly improve purchasing decisions. The difference in results can be caused by the characteristics of respondents and different market conditions [32], [33]. For GrabFood users in Sukabumi City, promotions play a greater role in increasing user satisfaction than directly determining purchasing decisions.

4.7.5 The Influence of Customer Satisfaction on Purchase Decisions

The results of the study showed that Customer Satisfaction had a positive and significant effect on Purchase Decision with an estimated value of 0.595, a C.R. value of 6.231, and a $P < 0.001$. These results show that consumer satisfaction is the most dominant factor in shaping GrabFood users' purchasing decisions.

These findings support Huse [20] theory that customer satisfaction is the result of consumer evaluation after comparing expectations with the experience received. Consumers who are satisfied with the service tend to have a desire to make a repurchase and maintain the use of a product or service.

The results of this study are also in line with previous research that shows that customer satisfaction has a strong influence on purchasing decisions [19], [34]. In the context of GrabFood, consumers who gain a positive experience from the quality of the app, services, and promotional benefits will have a higher level of confidence to return to use the service.

4.7.6 The Role of Customer Satisfaction as a Mediation Variable

The results of the effect analysis show that Customer Satisfaction plays a mediating

variable in the relationship between App Quality and Sales Promotion to Purchase Decision. App Quality has an indirect influence on Purchase Decision through Customer Satisfaction of 0.259, while Sales Promotion has an indirect influence of 0.229.

These results show that the quality of apps and promotions not only influences purchasing decisions directly, but also through the process of forming consumer satisfaction. These findings support Huse [20] concept that customer satisfaction is an important factor that links user experience to subsequent purchase behavior.

Thus, this study strengthens the understanding that the success of online food delivery services does not only depend on technological features or promotional programs, but also on the company's ability to create a satisfactory user experience [3], [35]. For GrabFood, improving the quality of the application and the right promotional strategy needs to be directed to build consumer satisfaction so that it can improve purchasing decisions in a sustainable manner.

5. CONCLUSION

This study examines the influence of Application Quality and Sales Promotion on Purchase Decisions through Customer Satisfaction as a mediating variable among GrabFood users in Sukabumi City. Based on the results of the Structural Equation Modeling (SEM) analysis using AMOS, it can be concluded that App Quality has a positive and significant influence on Customer Satisfaction. This shows that a well-developed application with easy navigation, reliable system performance, accurate information, and transaction security can increase user satisfaction with GrabFood's services.

The results of the study also show that Sales Promotion has a positive and significant effect on Customer Satisfaction. Promotional programs such as discounts, cashback, and vouchers provide added value for consumers, which contributes to a more positive user experience. In addition, App Quality has a positive and significant effect on Purchase Decisions, showing that app quality plays an

important role in influencing consumer confidence when choosing and using GrabFood. However, Sales Promotions do not have a direct significant effect on Purchase Decisions, suggesting that promotional incentives alone are not enough to drive a purchase decision directly without being supported by other factors.

Customer Satisfaction has the strongest positive and significant influence on Purchase Decisions. These findings show that consumer satisfaction is the main factor that determines whether users continue to choose GrabFood's services. Customer Satisfaction also acts as a mediating variable that strengthens the relationship between Application Quality and Sales Promotion to Purchase Decisions. Thus, improving the quality of applications and promotion strategies will be more effective when they are able to create a positive experience and increase consumer satisfaction.

This research contributes theoretically by expanding the understanding

of digital consumer behavior, especially in the context of online food delivery services. The research model provides empirical evidence that technology quality, marketing strategies, and consumer experience interact in shaping purchasing decisions. In practical terms, the findings provide recommendations for GrabFood to prioritize continuous app improvement, improve service reliability, and develop promotional programs that not only focus on short-term transactions but also create long-term customer satisfaction.

Future research is recommended to expand the research model by incorporating other variables that may influence purchasing decisions, such as customer trust, perceived price, quality of service, electronic word-of-mouth (e-WOM), and customer loyalty. Future studies could also involve different locations, larger sample sizes, or comparative analysis between online food delivery platforms to gain broader insights into digital consumer behavior

REFERENCES

- [1] T. Hansen, "Consumer food sustainability before and during the Covid-19 Crisis: A quantitative content analysis and food policy implications," *Food Policy*, vol. 107, no. July 2021, p. 102207, 2022, doi: 10.1016/j.foodpol.2021.102207.
- [2] M. M. Yusup, A. Alhidayatullah, and L. Siwiyanti, "Analisis Waktu Pengiriman dan Harga Produk Terhadap Tingkat Penjualan di Mediasi oleh Kepercayaan," *J. Ilmu Manaj. Retail Univ. Muhammadiyah Sukabumi*, vol. 6, no. 3, pp. 421–437, 2025, doi: <https://doi.org/10.37150/jimat.v6i3.3922>.
- [3] I. Rahmatullah, L. Siwiyanti, A. Sudarma, F. Ekonomi, and U. M. Sukabumi, "Analysis of e-WOM and Product Quality on Online Purchase Intention Through Brand Image Mediation (Case Study: Tokopedia Online Buying Interest in Sukabumi City)," *Eastasouth Manag. Bus.*, vol. 3, no. 02, pp. 291–299, 2025, doi: 10.58812/esmb.v3i02.
- [4] M. T. Tønnesen, S. Hansen, A. V. Laasholdt, and L. Lähteenmäki, "The impact of positive and reduction health claims on consumers' food choices," *Food Qual. Prefer.*, vol. 98, no. July 2021, 2022, doi: 10.1016/j.foodqual.2022.104526.
- [5] R. A. Fauziah, L. Siwiyanti, A. Sudarma, N. : Rossa, and A. Fauziah, "Analyze Brand Ambassadors and Advertising Through Brand Image on Buyer Decisions (Case Study: Purchase of BTS Meal at Mcdonald's Sukabumi) Article Info ABSTRACT," *Es Econ. Entrep.*, vol. 3, no. 02, pp. 180–188, 2024, doi: 10.58812/esee.v3i02.
- [6] N. Cho and S. Park, "Development of electronic commerce user-consumer satisfaction index (ECUSI) for Internet shopping," *Ind. Manag. Data Syst.*, vol. 101, no. 8, pp. 400–406, Jan. 2001, doi: 10.1108/EUM000000000006170.
- [7] M. A. Osman, A. Z. Talib, Z. A. Sanusi, T. Shiang-Yen, and A. S. Alwi, "A Study of the Trend of Smartphone and its Usage Behavior in Malaysia," *Int. J. New Comput. Archit. Their Appl.*, vol. 2, no. 1, pp. 275–286, 2012.
- [8] N. Amat-Lefort, F. Marimon, and M. Mas-Machuca, "Exploring driver and user perspectives of service quality in sharing economy transport platforms," *Total Qual. Manag. Bus. Excell.*, vol. 34, no. 11–12, pp. 1315–1333, 2023, doi: 10.1080/14783363.2023.2169123.
- [9] S. Kraus, C. Palmer, N. Kailer, F. L. Kallinger, and J. Spitzer, "Digital entrepreneurship: A research

- agenda on new business models for the twenty-first century," *Int. J. Entrep. Behav. Res.*, vol. 25, no. 2, pp. 353–375, 2019, doi: 10.1108/IJEBR-06-2018-0425.
- [10] A. Hermawati, "Transglobal leadership approach to sustainable tourism competitiveness at tourism sector-engaged MSMEs through integrated human resource performance and responsible marketing," *Int. J. Tour. Cities*, vol. 6, no. 4, pp. 863–883, 2020, doi: 10.1108/IJTC-06-2019-0085.
- [11] Riska, M. K. Amal, and N. A. Lestari, "Strategi Potongan Harga, Promosi Penjualan dan Gaya Hidup Berbelanja Dalam Meningkatkan Pembeli Impulsif," *Perform. J. Bisnis Akunt.*, vol. 12, no. 2, pp. 314–328, 2024, doi: <https://doi.org/10.24929/feb.v14i2.3627>.
- [12] A. Soleimani, S. Hassanzadeh, F. Baki, and B. Shah, "Machine Learning with Applications Forecasting weekly sales using lag-based feature engineering and a bagged tree ensemble," *Mach. Learn. with Appl.*, vol. 24, no. March, pp. 1–12, 2026, doi: 10.1016/j.mlwa.2026.100922.
- [13] D. Fine and T. Chernonog, "In-app Ad Intensity vs . App Quality , Versioning , and Interaction In-app Ad Intensity vs . App Quality , Versioning , and Interaction with Ad Mediation Platform," *Procedia Comput. Sci.*, vol. 253, no. 2024, pp. 794–804, 2025, doi: 10.1016/j.procs.2025.01.141.
- [14] M. R. Pratama and W. Handayani, "Analisis of My PERTAMINA Service Design to Improve Service Quality," *JHSS (JOURNAL Humanit. ...)*, vol. 09, no. 01, pp. 65–71, 2025, doi: <https://doi.org/10.33751/jhss.v9i1.49>.
- [15] A. M. Ramdan, L. Siwiyanti, K. Komariah, and M. A. Ramdhany, "Effect of Influencer Marketing and Green Marketing on Brand Awareness of Traditional Culinary SMEs in West Java," *J. Ilmu Sos. dan Hum.*, vol. 12, no. 3, pp. 453–462, 2023, doi: 10.23887/jish.v12i3.66147.
- [16] J. C. Lopez *et al.*, "Using Behavior Science to Maximize Human Performance," 2021. doi: 10.2118/207918-MS.
- [17] L. M. Matthews and D. R. Edmondson, "Overcoming emotional exhaustion in a sales setting," *J. Glob. Sch. Mark. Sci. Bridg. Asia World*, vol. 30, no. 3, pp. 229–239, 2020, doi: 10.1080/21639159.2020.1766989.
- [18] A. R. Persada, H. Mulyadi, A. J. W. Mahri, and C. Furqon, "Digital Transformation and Business Incubation on SME Performance in Indonesia," *J. Ilm. Manaj. Kesatuan*, vol. 13, no. 4, pp. 2183–2194, 2025, doi: 10.37641/jimkes.v13i4.3441.
- [19] S. Moha and S. Loindong, "Analisis kualitas pelayanan dan fasilitas terhadap kepuasan konsumen pada hotel yuta di kota manado," *J. EMBA J. Ris. Ekon. ...*, vol. 4, no. 1, pp. 575–584, 2016.
- [20] O. Huse *et al.*, "Strategies used by the soft drink industry to grow and sustain sales: a case-study of The Coca-Cola Company in East Asia," *BMJ Glob. Heal.*, vol. 7, no. 12, pp. 1–17, 2022, doi: 10.1136/bmjgh-2022-010386.
- [21] P. Kotler and K. L. Keller, *Manajemen Pemasaran*, 12th ed. Indonesia: PT Indeks, 2018.
- [22] V. Jaskeviciute, A. Stankeviciene, D. Diskiene, and J. Savicke, "The relationship between employee well-being and organizational trust in the context of sustainable human resource management," *Probl. Perspect. Manag.*, vol. 19, no. 2, pp. 118–131, 2021, doi: 10.21511/ppm.19(2).2021.10.
- [23] A. Rengga Gunawan, A. Sudarma, and L. Siwiyanti, "Analysis of the Effect of Memberly Card and Customer Experience on Customer Loyalty in Mediation by Customer Satisfaction (Case Study on Tasik Pharmacy in Sukabumi City)," *Int. J. Econ. Manag. Account.*, vol. 2, no. 9, pp. 749–762, Feb. 2025, doi: 10.47353/ijema.v2i9.237.
- [24] A. Munawar and Suryana, "The Influence of Entrepreneurial Learning and the Motivation to the Entrepreneurial Interest of Students With Self Efficacy as Variable Intervening," *J. Masyarakat Mandiri*, vol. 4, no. 3, pp. 424–435, 2020, [Online]. Available: <http://journal.ummat.ac.id/index.php/jmm>
- [25] A. M. Ramdan, L. Siwiyanti, K. Komariah, and M. Arief, "Effect of Influencer Marketing and Green Marketing on Brand Awareness of Effect of Influencer Marketing and Green Marketing on Brand Awareness of Traditional Culinary SMEs in West Java," *J. Ilmu Sos. dan Hum.*, vol. 12, 2023, doi: 10.23887/jish.v12i3.66147.
- [26] N. K. A. Wahid and N. Mohd. Mustamil, "Ways to maximize the triple bottom line of the telecommunication industry in Malaysia: The potentials of spiritual well-being through spiritual leadership," *J. Organ. Chang. Manag.*, vol. 30, no. 2, pp. 263–280, 2017, doi: 10.1108/JOCM-07-2015-0105.
- [27] J. F. Hair, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. SAGE Publications Inc., 2016.
- [28] P. Kotler, K. Kevin, and A. Chernev, *Marketing Management*, vol. 53, no. 9. 2021.
- [29] K. Spera, G. Holmes, and S. A. Barnes, "Using a multidisciplinary data approach to operationalize an experience framework," *Patient Exp. J.*, vol. 8, no. 3, pp. 162–171, 2021, doi: 10.35680/2372-0247.1545.
- [30] R. Kurniawan *et al.*, *Kewirausahaan "Kebal Hadapi Ancaman Resesi Global 2023*. Makasar: Tohar Media,

- 2023.
- [31] M. S. D. P. Nayak, K. A. Narayan, and K. A. Narayan, "Strengths and Weakness of Online Surveys Strengths and weaknesses of online surveys," *IOSR J. Humanit. Soc. Sci. (IOSR-JHSS)*, vol. 24, no. 5, pp. 31–38, 2019, doi: 10.9790/0837-2405053138.
 - [32] A. Noviandi, "Pengaruh E-Wom (Electronic Word Of Mouth) Terhadap Keputusan Pembelian Produk Food & Beverage Secara Online Pada Marketplace Tokopedia," *Bus. Entrepreneursh. J.*, vol. 2, no. 1, pp. 25–29, 2021, doi: 10.57084/bej.v2i1.652.
 - [33] J. Wang and V. Butkouskaya, "Sustainable marketing activities, event image, perceived value and tourists' behavioral intentions in the sports tourism," *J. Econ. Financ. Adm. Sci.*, vol. 28, no. 55, pp. 60–78, 2023, doi: 10.1108/JEFAS-09-2022-0219.
 - [34] M. R. Rochmatullah, R. Rahmawati, A. N. Probohudono, and W. Widarjo, "Is quantifying performance excellence really profitable? An empirical study of the deployment of the Baldrige Excellence Measurement Model in Indonesia," *Asia Pacific Manag. Rev.*, vol. 28, no. 3, pp. 287–298, 2023, doi: 10.1016/j.apmrv.2022.10.006.
 - [35] A. Sulistiana, A. Sudarma, and L. Siwiyanti, "Analysis of City Branding and Smart City on The Decision to Visit Geopark Ciletuh Sukabumi," *SINOMICS J.*, vol. 3, no. 4, pp. 1099–1108, 2024, [Online]. Available: <https://sinomicsjournal.com/index.php/sj/article/view/395/349>