

The Impact of Digital Marketing, Product Quality, and Service Quality on Customer Satisfaction through Purchase Decision as Interacting Variables (Case Study of User Accurate Accounting Software In Jabodetabek Area)

Kumba Digdowiseiso¹, Yulia Kartika Sari²

^{1,2}Universitas Nasional, Jakarta, Indonesia

kumba.digdo@civitas.unas.ac.id

Abstract

The purpose of this study is to examine the impact of digital marketing, product quality, and service quality on customer satisfaction via purchasing decisions as an intervening variable. The research sample consisted of 168 users of accurate accounting software in the JABODETABEK area. Questionnaires were used to collect data, and STATA 16.0 was used to analyze the data. According to the findings of this study, digital marketing, product quality, and service quality have a positive and significant impact on purchasing decisions. Customer satisfaction is positively influenced by digital marketing, product quality, and service quality. Purchase decisions have a positive and significant impact on customer satisfaction. Digital marketing has a positive and significant impact on customer satisfaction through purchasing decisions. Product quality has a positive and significant impact on customer satisfaction through purchasing decisions. Through purchasing decisions, service quality has a positive and significant impact on customer satisfaction.

Keywords

digital marketing; product quality;
service quality; customer
satisfaction; buying decision



I. Introduction

One of the causes of the increasing use of the internet by consumers in finding the information they need is the advancement of technology, which has resulted in the growth of online sales sites where consumers can easily get information and also make transactions without having to go to the location of selling the goods or services they require. This, of course, saves a lot of energy, time, and money. Today's companies face increasingly difficult challenges, necessitating high levels of creativity, continuous innovation, increased flexibility, and the ability to respond and adapt quickly to global developments (Ellitan, 2002).

Companies must have a marketing strategy, one of which is digital marketing. Digital marketing is the marketing or promotion of a brand or product via the internet or digital media. To address the challenges and harness the opportunities offered by digital technologies during this crisis, participants shared a concern to recognize and protect digital rights in particular around the areas of privacy and inclusion (Hariati, 2021). This can be interpreted as internet users in Indonesia belongs to the category of digital natives group (Gunawan, 2020). According to a survey conducted by the Indonesian Internet

Service Providers Association (APJII) for the 2019-quarter II/2020 period, the number of internet users in Indonesia reached 196.7 million, indicating that the internet now plays an important role in determining consumer purchasing decisions. This is a huge opportunity for business actors to market their products. Consumers can also review directly, and if the company responds well, this can be a separate satisfaction for consumers (Rizky & Hidayati, 2021).

Product quality is also a determinant of consumer purchasing decisions; businesses must be able to present quality products while providing more value than their competitors. Quality is determined by a set of uses and functions such as durability, independence from other products, exclusivity, comfort, and outward appearance such as shape, color, and packaging (Handoko, 2010: 49).

Service quality is an important factor to consider when attempting to gain consumer trust. Companies must be able to provide quality services due to changes in lifestyle and consumer consumption patterns. Service quality must begin with consumer needs and end with consumer perceptions, where perception is a comprehensive assessment of a service's superiority (Kotler & Keller, 2007:25).

Rapid technological advancements are currently driving changes in the accounting world. Before accounting software, accountants used manual accounting. Accounting system that is very appropriate for use in modern times. There is no longer a technology stuttering term because information technology, including accounting records, supports the majority of today's jobs. People have shifted to software accounting because accounting software eliminates the need for humans to create manual journals, ledgers, financial reports, and other documents.

PT. Cipta Piranti Sejahtera Software (CPSSOFT) is a developer of Accurate Accounting Software that has been established since 1998 with the main mission of providing quality accounting software that is affordable for the wider community. CPSSoft first launched its first product in 1999 under the name Accurate 2000 and got a good response which made the increase in users very significant. Over time, many competitors emerged that offered similar products such as Jurnal.id, Zahir, Easy Accounting, etc. They all use digital platforms to promote their products.

In addition to attractive digital marketing, of course the quality of products and services is also the main thing that is seen by prospective buyers to make decisions in purchasing. Based on the background of the problem, the researcher is interested in formulating the problem of the influence of digital marketing, product quality and service quality on purchasing decisions and their impact on customer satisfaction, a case study on Accurate Accounting Software. This research is important so that companies can maximize their marketing returns and be able to outperform competitors.

PT. CPSSOFT has two types of products, namely Accurate Desktop and Accurate Online, here are the sales data for the two products for the last 5 years from one of the stores in Jakarta:

Table 1. Sales Data for Accurate Accounting Software (Store Plaza Semanggi)

Number of Products Sold	2018	2019	2020	2021
Accurate Desktop	211	200	121	123
Accurate Online	90	162	210	216
Total	301	362	331	339

From table 1, it can be seen that sales for accurate desktops have decreased from year to year, while for accurate online there has been an increase but for overall product sales each year there is no significant increase, maybe the contributing factor is the marketing strategy (digital marketing), product quality or quality. services that cause the purchase of products by consumers is not optimal. For this reason, the authors will conduct further research on this phenomenon.

This research was conducted due to the research gap of previous studies, specifically the inconsistency of research findings regarding the influence of digital marketing on purchasing decisions. Saputra & Ardani (2020) found that digital marketing had a positive and significant effect on purchasing decisions, whereas Mewoh et al. (2019) found that digital marketing had a positive and insignificant effect on purchasing decisions.

The findings of research on the effect of product quality on purchasing decisions are incongruent, as Sari & Prihatono (2021) asserted that product quality had a positive and significant effect on purchasing decisions, whereas Revita et al. (2018) stated that product quality had a positive and insignificant effect on purchasing decisions.

According to Umar & Riyanto (2019), service quality had a positive and significant effect on purchasing decisions, whereas Khoziyah & Lubis (2021) found that service quality had a positive and insignificant effect on purchasing decisions. This again demonstrates the inconsistency of research findings regarding the effect of service quality on purchasing decisions.

II. Research Methods

This study makes use of quantitative data. Quantitative data consists of numerical or numeric information (Digdowiseiso, 2017:158). Therefore, quantitative data is data that tends to be statistically analyzed. The data can take the form of numbers or scores and are typically collected using a tool whose responses consist of a variety of scores or weighted questions. This study's primary data is a recapitulation of data from questionnaires distributed as questions regarding the Influence of Digital Marketing, Product Quality, and Service Quality on Customer Satisfaction via Purchase Decisions as Intervening Variables (Case Study of User Accurate Accounting Software in the JABODETABEK Area).

III. Discussion

3.1 Results and Discussion

The description of the object of research was obtained from the results of questionnaires distributed for research to users of Accurate Accounting Software in the JABODETABEK area, who were the research subjects. The basic characteristics of respondents who are asked in the questionnaire are gender, age, and last education with the output data as follows.

Table 2. Characteristics of Respondents by Gender

Gender	Frequency	Presentation (%)
Man	63	37.5%
Woman	105	62.5%
Total	168	100%

Source: The results of the questionnaire that have been processed

Based on Table 2 above, it can be explained that the percentage of female sex is 62.5% greater than male respondents 37.5%, so it can be concluded that users of Accurate Accounting Software in the JABODETABEK area are dominated by women.

Table 3. Characteristics of Respondents Based on Age

Age	Frequency	Percentage (%)
20-30 Years	97	58%
31-40 Years	42	25%
41-50 Years	27	16%
51-60 Years	2	1%
Total	168	100%

Source: The results of the questionnaire that have been processed

Based on Table 3 above, it shows that it is dominated by the age range of 20-30 years with a percentage of 58% for Accurate Accounting Software users in the JABODETABEK area.

Table 4. Characteristics of Respondents Based on Last Education

Education	Frequency	Percentage (%)
SENIOR HIGH SCHOOL	25	15%
D3	10	6%
S1	121	72%
S2	12	7%
Total	168	100%

Source: The results of the questionnaire that have been processed

Based on Table 4 above, it shows that the largest user of Accurate Accounting Software has an undergraduate level of education, which is 72%.

3.2 Instrument Test

a. Validity test

Validity testing was carried out with the help of a computer using the STATA 16.0 for Windows program. The validity test was carried out with the aim of testing the validity of each question item on the questionnaire that had been designed. In this study, validity testing was carried out on 168 respondents. Decision making is based on the value of $r\text{-count} > r\text{-table}$ of 0.1515, for $df = 168 - 2 = 166$; $\alpha = 0.05$ then the item / question is valid and vice versa. Table 5 presents the results of the validity test for each question item from the questionnaire.

Table 5. Validity Test on Questionnaire Question Items

R Count	R Table	Results
0.6777	0.1515	Valid ($R\text{ Count} > R\text{ Table}$)
0.7089	0.1515	Valid ($R\text{ Count} > R\text{ Table}$)
0.7269	0.1515	Valid ($R\text{ Count} > R\text{ Table}$)
0.6878	0.1515	Valid ($R\text{ Count} > R\text{ Table}$)
0.5634	0.1515	Valid ($R\text{ Count} > R\text{ Table}$)
0.5855	0.1515	Valid ($R\text{ Count} > R\text{ Table}$)

0.6500	0.1515	Valid (R Count > R Table)
0.7621	0.1515	Valid (R Count > R Table)
0.6740	0.1515	Valid (R Count > R Table)
0.7406	0.1515	Valid (R Count > R Table)
0.7151	0.1515	Valid (R Count > R Table)
0.6881	0.1515	Valid (R Count > R Table)
0.7741	0.1515	Valid (R Count > R Table)
0.7541	0.1515	Valid (R Count > R Table)
0.7956	0.1515	Valid (R Count > R Table)
0.7293	0.1515	Valid (R Count > R Table)
0.6403	0.1515	Valid (R Count > R Table)
0.6644	0.1515	Valid (R Count > R Table)
0.7126	0.1515	Valid (R Count > R Table)
0.7051	0.1515	Valid (R Count > R Table)
0.7184	0.1515	Valid (R Count > R Table)
0.7094	0.1515	Valid (R Count > R Table)
0.7270	0.1515	Valid (R Count > R Table)
0.6325	0.1515	Valid (R Count > R Table)
0.7257	0.1515	Valid (R Count > R Table)
0.7597	0.1515	Valid (R Count > R Table)
0.7057	0.1515	Valid (R Count > R Table)
0.6958	0.1515	Valid (R Count > R Table)

A question is said to be valid if the value of $r_{count} > 0.1515$ r-table. It is known that all values of $r_{count} > 0.1515$ r-table. So it was concluded that all questions on the questionnaire were valid.

b. Reliability Test

Reliability testing should be done only on questions that already have or meet the validity test, so if it doesn't meet the validity test requirements, it doesn't need to be continued for reliability testing. The following are the results of the reliability test on valid questions.

Table 6. Reliability Test

Variable	Cronbach's Alpha	Results
Digital Marketing (X1)	0.8572	Reliable
Product Quality (X2)	0.8912	Reliable
Service Quality (X3)	0.8928	Reliable
Purchase Decision (Z)	0.8891	Reliable
Customer Satisfaction (Y)	0.8744	Reliable

If Cronbach's Alpha value is greater than 0.7, then the research questionnaire is reliable. It is known that the questionnaire is reliable, because all Cronbach's Alpha values are greater than 0.7.

3.3 Classic Assumption Test

a. Normality Test

In this study, the normality test was performed using the Skewness/Kurtosis test. The significance level used $\alpha = 0.05$. The basis for decision making is to look at the probability

numbers, provided that, If the probability value $p > 0.05$, then the assumption of normality is met. If the probability $p < 0.05$, then the assumption of normality is not met.

Table 7. Normality Test

```
. sktest res
```

Skewness/Kurtosis tests for Normality					
Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint adj chi2(2)	Prob>chi2
res	168	0.7620	0.0321	4.75	0.0929

Note that based on Table 7 it is known that the probability value is 0.0929. Because the probability value of p, which is 0.0929, is greater than the significance level, which is 0.05. This means that the data is normally distributed.

b. Multicollinearity Test

To check whether there is multicollinearity or not, it can be seen from the value of the variance inflation factor (VIF). According to Ghazali (2013), a VIF value of more than 10 indicates that an independent variable has multicollinearity.

Table 8. Multicollinearity Test

```
. vif
```

Variable	VIF	1/VIF
z	6.38	0.156764
x1	5.86	0.170585
x2	5.65	0.177098
x3	5.30	0.188537
Mean VIF	5.80	

Note that based on Table 8, all VIF values < 10 , it is concluded that there is no multicollinearity.

c. Heteroscedasticity Test

The Breusch-Pagan test was used in this study to perform a heteroscedasticity test. If the probability value (prob $>$ chi2) is greater than a significance level of 0.05, it is concluded that there is no heteroscedasticity. However, if the probability value is < 0.05 , then it is concluded that heteroscedasticity occurs.

Table 9. Heteroscedasticity Test

```
. hettest
```

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of y	
chi2(1)	= 2.69
Prob > chi2	= 0.1010

Based on the results of the heteroscedasticity test in Table 9, it is known that the probability value (Prob $>$ chi2) is $0.1010 > 0.05$, so it is concluded that there is no heteroscedasticity.

d. Autocorrelation Test

Runs test is used in this research to perform autocorrelation test. If the probability value is greater than the 0.05 level of significance, then it is concluded that there is no autocorrelation. However, if the probability value is < 0.05 , it can be concluded that there is an autocorrelation.

Table 10. Autocorrelation Test

```
. runtest res
N(res <= -.0080689340829849) = 84
N(res > -.0080689340829849) = 84
obs = 168
N(runs) = 77
z = -1.24
Prob>|z| = .22
```

Based on the results of the autocorrelation test in Table 10, it is known that the probability value (Prob $> |z|$) is $0.22 > 0.05$, so it is concluded that there is no autocorrelation.

3.4 Path Diagram Analysis

Table 11. Results of the Path Diagram (Path Diagram)

Structural KPEM	Coe/Std.Err.
DM	0.32 *** (0.09)
mortgage	0.38 *** (0.05)
KPEL	0.28 *** (0.08)
KPEM	0.24 *** (0.07)
Structural KP	
KPEM	0.24 *** (0.07)
DM	0.21 *** (0.08)
mortgage	0.22 *** (0.05)
KPEL	0.17 ** (0.07)
Obs	168
LR Test	0.00

Note: Numbers in brackets are robust standard of error. ***= Significant at 1% level, **= Significant at 5% level, *= Significant at 10% level. Based on Table 11, using standardized coefficients, 2 (two) regression equations can be made, namely:

Substructure 1:

$$\text{KPEM} = 0.32\text{DM}_i + 0.38\text{KPR}_i + 0.28\text{KPEL}_i + i$$

Information :

KPEM = Purchase Decision

DM = Digital Marketing
 KPR = Product Quality
 KPEL = Service Quality

The variables of Digital Marketing, Product Quality and Service Quality have a positive coefficient. This can be interpreted if Digital Marketing, Product Quality and Service Quality have increased, there will be an increase in purchasing decisions for Accurate Accounting Software in the JABODETABEK area.

Substructure 2:

$$KP = 0.21DM_i + 0.22KPR_i + 0.17KPEL_i + 0.24KPEM_i + 2$$

Information:

KP = Customer Satisfaction
 DM = Digital Marketing
 KPR = Product Quality
 KPEL = Service Quality
 KPEM = Purchase Decision

The variables of Digital Marketing, Product Quality, Service Quality and Purchasing Decisions have positive coefficients. This means that if Digital Marketing, Product Quality, Service Quality and Purchase Decisions increase, there will be an increase in customer satisfaction with Accurate Accounting Software in the JABODETABEK area.

Table 12. Multiple Linear Regression Results

Variable	KP
DM	0.21 *** (0.08)
mortgage	0.22*** (0.06)
KPEL	0.17*** (0.08)
KPEM	0.24*** (0.07)
Cons	0.19 (0.71)
Adj R2	0.83
F-Value	0.00
Obs	168

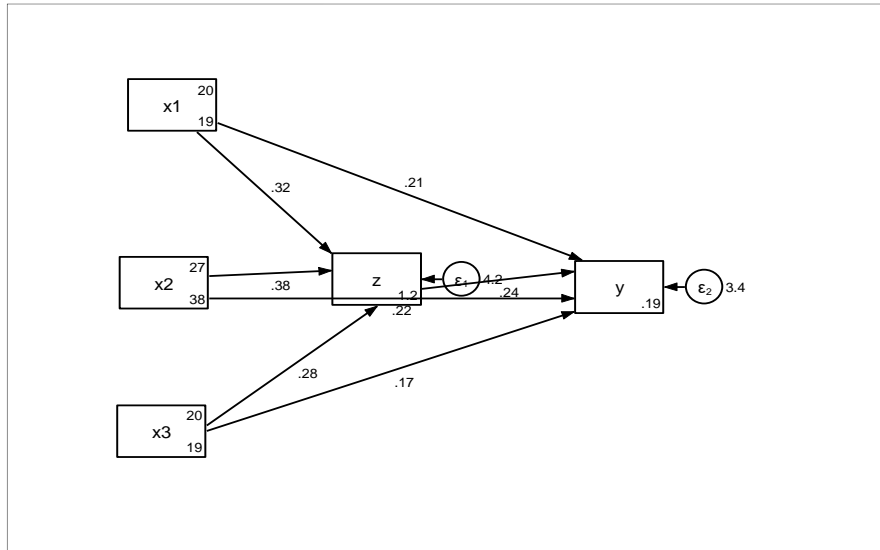


Figure 1. Path Diagram

The value of the coefficient of determination of 0.8269 indicates that 82.69% of the information contained in the data can be explained by the model, while the remaining 17.31% is explained by other variables outside the model. This explains that all independent variables consisting of digital marketing, product quality and service quality simultaneously affect the dependent variable consisting of purchasing decisions and customer satisfaction. Results of Direct Effects and Indirect Effects, the direct and indirect effects are as follows:

3.5 Direct Effects and Indirect Effects

Table 13. Direct Effects and Indirect Effects

. estat teffects

Direct effects						
	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Interval]	
Structural						
KPEM						
DM	.3183069	.085022	3.74	0.000	.1516668	.484947
KPR	.3826141	.0528149	7.24	0.000	.2790988	.4861295
KPEL	.2791143	.0792793	3.52	0.000	.1237297	.434499
KP						
KPEM	.240356	.0693876	3.46	0.001	.1043589	.3763532
DM	.2128473	.0795918	2.67	0.007	.0568503	.3688443
KPR	.2231784	.0544158	4.10	0.000	.1165254	.3298313
KPEL	.1705084	.0738846	2.31	0.021	.0256972	.3153195
Indirect effects						
	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Interval]	
Structural						
KPEM						
DM	0	(no path)				
KPR	0	(no path)				
KPEL	0	(no path)				
KP						
KPEM	0	(no path)				
DM	.076507	.0300903	2.54	0.011	.017531	.1354829
KPR	.0919636	.0294275	3.13	0.002	.0342867	.1496405
KPEL	.0670868	.0271696	2.47	0.014	.0138354	.1203382
Total effects						
	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Interval]	
Structural						
KPEM						
DM	.3183069	.085022	3.74	0.000	.1516668	.484947
KPR	.3826141	.0528149	7.24	0.000	.2790988	.4861295
KPEL	.2791143	.0792793	3.52	0.000	.1237297	.434499
KP						
KPEM	.240356	.0693876	3.46	0.001	.1043589	.3763532
DM	.2893543	.0791495	3.66	0.000	.1342241	.4444844
KPR	.315142	.049167	6.41	0.000	.2187765	.4115075
KPEL	.2375952	.0738035	3.22	0.001	.092943	.3822473

3.6 Direct Effects

- The Effect of Digital Marketing Variables (X1) on Purchase Decisions (Z). $X1 \rightarrow Z$ = path coefficient 0.318, and probability $p = 0.000 < 0.05$.
- Effect of Product Quality Variable (X2) on Purchase Decision (Z) $X2 \rightarrow Z$ = path coefficient 0.382, and probability $p = 0.000 < 0.05$.
- The Influence of Service Quality Variable (X3) on Purchase Decision (Z). $X2 \rightarrow Z$ = path coefficient 0.279, and probability $p = 0.000 < 0.05$.
- The Influence of Purchase Decision Variable (Z) on Customer Satisfaction (Y). $Z \rightarrow Y$ = path coefficient 0.240, and probability $p = 0.001 < 0.05$.
- The Effect of Digital Marketing Variables (X1) on Customer Satisfaction (Y). $X1 \rightarrow Y$ = path coefficient 0.212, and probability $p = 0.007 < 0.05$.
- Effect of Product Quality Variable (X2) on Customer Satisfaction (Y). $X2 \rightarrow Y$ = path coefficient 0.223, and probability $p = 0.000 < 0.05$.
- The Influence of Service Quality Variables (X3) on Customer Satisfaction (Y). $X2 \rightarrow Y$ = path coefficient 0.170, and probability $p = 0.021 < 0.05$.

3.7 Indirect Effects

- The Effect of Digital Marketing Variables (X1) on Customer Satisfaction (Y) through Purchase Decisions (Z). $X1 \rightarrow Z \rightarrow Y$ = path coefficient 0.765, and probability $p = 0.011 < 0.05$.
- The Effect of Product Quality Variable (X2) on Customer Satisfaction (Y) through Purchase Decision (Z). $X2 \rightarrow Z \rightarrow Y$ = path coefficient 0.919, and probability $p = 0.002 < 0.05$.
- The Influence of Service Quality Variable (X1) on Customer Satisfaction (Y) through Purchase Decision (Z). $X1 \rightarrow Z \rightarrow Y$ = path coefficient 0.670, and probability $p = 0.014 < 0.05$.

Table 14. Sobel Test Results (Digital Marketing)

. medsem, indep(DM) med(KPEM) dep(KP) mcreps(500) rit rid			
Significance testing of indirect effect (unstandardised)			
Estimates	Delta	Sobel	Monte Carlo
Indirect effect	0.077	0.077	0.077
Std. Err.	0.030	0.030	0.031
z-value	2.543	2.543	2.511
p-value	0.011	0.011	0.012
Conf. Interval	0.018 , 0.135	0.018 , 0.135	0.023 , 0.140
Baron and Kenny approach to testing mediation STEP 1 - KPEM:DM (X -> M) with B=0.318 and p=0.000 STEP 2 - KP:KPEM (M -> Y) with B=0.240 and p=0.001 STEP 3 - KP:DM (X -> Y) with B=0.213 and p=0.007 As STEP 1, STEP 2 and STEP 3 as well as the Sobel's test above are significant the mediation is partial!			
RIT = (Indirect effect / Total effect) (0.077 / 0.289) = 0.264 Meaning that about 26 % of the effect of DM on KP is mediated by KPEM!			
RID = (Indirect effect / Direct effect) (0.077 / 0.213) = 0.359 That is, the mediated effect is about 0.4 times as large as the direct effect of DM on KP!			

Mediation analysis using the causal step method (Baron & Kenny, 1986), step 1, step 2, and step 3 based on the Sobel test stated that partial mediation occurred. If the z-value > 1.96 or the level of statistical significance z (p-value) < 0.05, it means that there is an indirect effect of the independent variable on the dependent variable through the mediator. It is known that the z-value is 2.543 > 1.96 and the p-value is 0.011 < 0.05, which means that there is an influence of digital marketing on customer satisfaction mediated by purchasing decisions. The RIT value is 0.264 (26%) which means that the influence of digital marketing on customer satisfaction is mediated by 26% purchasing decisions.

Table 15. Sobel Test Results (Product Quality)

```
. medsem, indep(KPR) med(KPEM) dep(KP) mcreps(500) rit rid
```

Significance testing of indirect effect (unstandardised)

Estimates	Delta	Sobel	Monte Carlo
Indirect effect	0.092	0.092	0.093
Std. Err.	0.029	0.029	0.029
z-value	3.125	3.125	3.168
p-value	0.002	0.002	0.002
Conf. Interval	0.034 , 0.150	0.034 , 0.150	0.036 , 0.152

Baron and Kenny approach to testing mediation

STEP 1 - KPEM:KPR (X -> M) with B=0.383 and p=0.000

STEP 2 - KP:KPEM (M -> Y) with B=0.240 and p=0.001

STEP 3 - KP:KPR (X -> Y) with B=0.223 and p=0.000

As STEP 1, STEP 2 and STEP 3 as well as the Sobel's test above are significant the mediation is partial!

RIT = (Indirect effect / Total effect)

(0.092 / 0.315) = 0.292

Meaning that about 29 % of the effect of KPR on KP is mediated by KPEM!

RID = (Indirect effect / Direct effect)

(0.092 / 0.223) = 0.412

That is, the mediated effect is about 0.4 times as large as the direct effect of KPR on KP!

Mediation analysis using the causal step method (Baron & Kenny, 1986), step 1, step 2, and step 3 based on the Sobel test stated that partial mediation occurred. If the z-value > 1.96 or the level of statistical significance z (p-value) < 0.05, it means that there is an indirect effect of the independent variable on the dependent variable through the mediator. It is known that the z-value is 3.125 > 1.96 and the p-value is 0.002 < 0.05, which means that there is an effect of product quality on customer satisfaction mediated by purchasing decisions. RIT value of 0.29 (29%) which means the influence of product quality on customer satisfaction is mediated by purchasing decisions of 29%.

Table 16. Sobel Test Results (Quality of Service)

```
. medsem, indep(KPEL) med(KPEM) dep(KP) mcreps(500) rit rid
```

Significance testing of indirect effect (unstandardised)

Estimates	Delta	Sobel	Monte Carlo
Indirect effect	0.067	0.067	0.067
Std. Err.	0.027	0.027	0.028
z-value	2.469	2.469	2.431
p-value	0.014	0.014	0.015
Conf. Interval	0.014 , 0.120	0.014 , 0.120	0.019 , 0.125

Baron and Kenny approach to testing mediation

STEP 1 - KPEM:KPEL (X → M) with B=0.279 and p=0.000

STEP 2 - KP:KPEM (M → Y) with B=0.240 and p=0.001

STEP 3 - KP:KPEL (X → Y) with B=0.171 and p=0.021

As STEP 1, STEP 2 and STEP 3 as well as the Sobel's test above are significant the mediation is partial!

RIT = (Indirect effect / Total effect)
(0.067 / 0.238) = 0.282

Meaning that about 28 % of the effect of KPEL on KP is mediated by KPEM!

RID = (Indirect effect / Direct effect)
(0.067 / 0.171) = 0.393

That is, the mediated effect is about 0.4 times as large as the direct effect of KPEL on KP!

Mediation analysis using the causal step method (Baron & Kenny, 1986), step 1, step 2, and step 3 based on the Sobel test stated that partial mediation occurred. If the z-value > 1.96 or the level of statistical significance z (p-value) < 0.05, it means that there is an indirect effect of the independent variable on the dependent variable through the mediator. It is known that the z-value is 2.47 > 1.96 and the p-value is 0.014 < 0.05, which means that there is an influence of service quality on customer satisfaction mediated by purchasing decisions. RIT value of 0.28 (28%) which means the influence of service quality on customer satisfaction is mediated by purchasing decisions of 28%.

Looking at the results of the indirect influence of the digital marketing mediation model (X1) → purchasing decisions (Z) → customer satisfaction (Y), product quality (X2) purchasing decisions (Z) → customer satisfaction (Y), and service quality (X3) → decisions purchase (Z) → customer satisfaction (Y) from the Sobel test and the causal strategy step above, it can be interpreted that the mediation that occurs is partial mediation. Digital marketing RID value of 0.359 (0.36) which means the mediated indirect effect is about 0.36 greater than the direct effect on customer satisfaction, the RID value of product quality is 0.412 (0.41) which means the mediated indirect effect is about 0.41 greater than the direct effect of product quality on customer satisfaction and the RID value of service quality is 0.393 (0,

Based on the data above, it is obtained information on the results of hypothesis testing as follows:

1. Hypothesis Testing 1

H1: There is a direct influence of digital marketing on purchasing decisions for Accurate Accounting Software. The test shows that Digital Marketing has a positive and significant effect on customer satisfaction, with a path coefficient value of 0.318, and a probability value of $p = 0.000 < 0.05$ so that hypothesis 1 can be accepted.

2. Hypothesis Testing 2

H2: There is a direct influence of product quality on Accur purchasing decisionsate Accounting Software. The test shows that product quality has a positive and significant

- effect on purchasing decisions, with a path coefficient value of 0.382, and with a probability value of $p = 0.000 < 0.05$ so that hypothesis 2 can be accepted.
3. Hypothesis Testing 3
H3: There is a direct influence of service quality on purchasing decisions for Accurate Accounting. The test shows the results of service quality have a positive and significant effect on purchasing decisions, with a path coefficient value of 0.279, and with a probability value of $p = 0.000 < 0.05$ so that hypothesis 3 can be accepted.
 4. Hypothesis Testing 4
H4: There is a direct influence of Digital Marketing on Customer Satisfaction on Accurate Accounting Software. The test shows that the results of digital marketing have a positive and significant effect on customer satisfaction, with a path coefficient value of 0.212, and a probability value of $p = 0.007 < 0.05$ so that hypothesis 4 can be accepted.
 5. Hypothesis Testing 5
H5: There is a direct effect of product quality on customer satisfaction on Accurate Accounting Software. The test shows that product quality has a positive and significant effect on customer satisfaction, with a path coefficient value of 0.223, and a probability value of $p = 0.000 < 0.05$, so that hypothesis 5 can be accepted.
 6. Hypothesis Testing 6
H6: There is a direct influence of service quality on customer satisfaction on Accurate Accounting Software. The test shows that the results of service quality have a positive and significant effect on customer satisfaction, with a path coefficient value of 0.170, and a probability value of $p = 0.021 < 0.05$, so that hypothesis 6 can be accepted.
 7. Hypothesis Testing 7
H7: There is a direct influence of Purchase Decision on Customer Satisfaction on Accurate Accounting Software. The test shows the results of purchasing decisions have a positive and significant effect on customer satisfaction, with a path coefficient value of 0.240, and with a probability value of $p = 0.001 < 0.05$, so that hypothesis 7 can be accepted.
 8. Hypothesis Testing 8
H8: There is an indirect effect of Digital Marketing on Customer Satisfaction through Buyer Decisions on Accurate Accounting Software. The test shows that the results of digital marketing have a positive and significant effect on customer satisfaction mediated by purchasing decisions. With a path coefficient value of 0.076, a Z value of $2.54 > 1.97$ and significant, with a probability value of $p = 0.011 < 0.05$. The RIT value is 0.26 (26%) which means that the influence of digital marketing on customer satisfaction is mediated by 26% purchasing decisions. The RID value is 0.36 which means that the mediated indirect effect is about 0.36 greater than the direct effect of digital marketing on customer satisfaction, thus hypothesis 8 can be accepted.
 9. Hypothesis Testing 9
H9: There is an indirect effect of Product Quality on Customer Satisfaction through Accurate Accounting Software Purchase Decisions. The test shows that product quality has a positive and significant effect on customer satisfaction mediated by purchasing decisions. With a path coefficient value of 0.091, the Z value of $3.31 > 1.97$ and significant, with a probability value of $p = 0.002 < 0.05$. RIT value of 0.29 (29%) which means the influence of product quality on customer satisfaction is mediated by purchasing decisions of 29%. The RID value is 0.41 which means that the mediated indirect effect is about 0.41 greater than the direct effect of product quality on customer satisfaction, thus hypothesis 9 can be accepted.

10. Hypothesis Testing 10

H10: There is an indirect effect of Service Quality on Customer Satisfaction through Purchase Decisionsn Accurate Accounting Software. The test shows that the results of Service Quality have a positive and significant effect on customer satisfaction mediated by purchasing decisions. With a path coefficient value of 0.067, the Z value of $2.47 > 1.97$ and significant, with a probability value of $p = 0.014 < 0.05$. RIT value of 0.28 (28%) which means the influence of service quality on customer satisfaction is mediated by purchasing decisions of 28%. The RID value is 0.39, which means that the mediated indirect effect is about 0.39 greater than the direct effect of service quality on customer satisfaction, thus hypothesis 10 can be accepted.

IV. Conclusion

Based on the results of the research and discussion that have been described, the following conclusions can be drawn:

1. Digital marketing has a direct positive and significant impact on purchasing decisions for accurate accounting software in the JABODETABEK area. This means that if Accurate's digital marketing is getting better, the Purchase Decision will increase.
2. Product quality has a direct positive and significant impact on purchasing decisions for accurate accounting software in the JABODETABEK area. This means that if the quality of Accurate's products is getting better, the purchasing decisions will increase.
3. Service quality has a direct positive and significant impact on purchasing decisions for accurate accounting software in the JABODETABEK area. This means that if the service quality of Accurate is getting better, the purchasing decisions will also increase.
4. Digital marketing has a direct positive and significant impact on customer satisfaction with accurate accounting software in the JABODETABEK area. This means that if the digital marketing of Accurate Accounting Software in the JABODETABEK area is getting better, then customer satisfaction will increase.
5. Product quality has a direct positive and significant impact on customer satisfaction with accurate accounting software in the JABODETABEK area. This means that if the quality of Accurate's products is getting better, then customer satisfaction is increasing.
6. Service quality has a direct positive and significant impact on customer satisfaction with accurate accounting software in the JABODETABEK area. This means that if the service quality of Accurate is getting better, then customer satisfaction is increasing.
7. Purchase decisions have a direct positive and significant impact on customer satisfaction with accurate accounting software in the JABODETABEK area. This means that if the purchase decision increases, then customer satisfaction will also increase.
8. Digital marketing has a positive and significant indirect influence on customer satisfaction through purchasing decisions for accurate accounting software in the JABODETABEK area. This means that if the digital marketing accurate accounting software in the JABODETABEK area is getting better, then customer satisfaction will increase mediated by purchasing decisions.
9. Product quality has a positive and significant indirect influence on customer satisfaction through the purchase decision of accurate accounting software in the JABODETABEK area. This means that if the product quality of accurate accounting software is getting better, then customer satisfaction will increase mediated by purchasing decisions.
10. Service quality has a positive and significant indirect influence on customer satisfaction through purchasing decisions for accurate accounting software in the JABODETABEK

area. This means that if the service quality of accurate accounting software is getting better, then customer satisfaction will increase mediated by purchasing decisions.

References

- Alma, B. (2013). *Marketing Management and Service Marketing* (Alfabeta, Ed.). Bandung.
- Armstrong, Gary and Philip Kotler. 2015. *Marketing Fundamentals*. Volume 1, Translated by Alexander Sindoro and Benjamin Molan. Jakarta: Prenhalindo.
- Alan Saputro¹, Drs. Sugiono Sugiharto, 2018. The Influence of Digital Marketing and Brand Ambassadors in Establishing Brand Identity as an Intervention Variable on Purchase Intention on Markobar Products. *Journal of Marketing Strategy* Vol 5 No 2.
- Budiono, Aris. (2020). The Influence of Service Quality, Price, Promotion, and Brand Image on Customer Satisfaction Through Purchase Decisions. *Equilibrium: Journal of Educational Research and Economics*, 17(2), 1-15. DOI: 10.25134/equi.v17i02.
- Digdowiseiso, Kumba. (2017). *Economics and Business Research Methodology*. Jakarta: National University Publishing Institute (LPU-UNAS).
- Ellitan, 2002. Human Resource Management Practices and Sustainable Competitive Advantage. *Journal of Management & Entrepreneurship* Vol. 4, No. 2
- Fawaid, A. (2017). The Effect of Digital Marketing System on Sales Competitiveness of Etawa Goat Milk. *IQTISHADIA: Journal of Islamic Banking & Economics*, 4(1), 104–119.
- Fransilia Marsilina Mewoh, Johny RE Tampi, Danny DS Mukuan. 2019. The Influence of Digital Marketing on Purchase Decisions at Matahari Department Store Manado Town Square. *Journal of Business Administration* Vol. 9. No. 1, 2019.
- Gaspersz, Vincent. 2008. *Total Quality Management*. Jakarta: Gramedia Pustaka Utama.
- Gede Wisnu Saputra¹ and I Gusti Agung Ketut Sri Ardani, 2020 The Effect of Digital Marketing, Word Of Mouth, And Service Quality On Purchase Decisions. *E-Journal of Management*, Vol. 9, No. 7
- Gunawan, G.G., and Sulaeman, M. (2020). Determining Factors in the Use of Digital Marketing and Its Effect on Marketing Performance in the Creative Industries in Tasikmalaya. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* Vol 3 (3): 2543-2550.
- Hariati, P. (2021). Implementation of Digital Literacy toward Pandemic Situation. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* Vol 4 (2): 2920-2926.
- Haryoko, UBHB, & Sinaga, P. (2019). The Effect of Promotional Costs on Sales Levels (Case Study on Anugrah Mandiri Jakarta Agent). *Journal of Competitive Marketing*, 2(2), 35–47.
- Ha, L. (2008). Online advertising research in advertising journals: A Review of Current Journal Issues and Research in Advertising, 30, 31–48
- Heri Setiawan, Hary Sulaksono, Haifa, 2021. The Effect of Product Quality, Service Quality and Company Image on Consumer Satisfaction Pt. FIF Group Jember Branch. *Journal of Business Management and Information Management*, Volume 2 No.
- Kotler, and Keller (2012). *Marketing Management*. Edition 12. Jakarta: Erlangga
- Kotler, and Armstrong, G. 2012. *Principles of Marketing*. Jakarta: Erlangga.
- Kotler Philip and Kevin Keller, 2012. *Marketing Management* 13, New Jersey. Pearson Prentice Hall, Inc., New Jersey.
- Kim, EY (2004). Predicting Online Purchase Intentions for Clothing Products. 883-897
- Lupiyoadi, Rambat. 2014. *Service Marketing Management*. Edition 3. Jakarta: Four Salemba

- Prosperous Hasanuddin. 2016. Analysis of the Effect of Service Quality, Location and Price on Customer Satisfaction Through Purchase Decisions as Intervening Variables in Sales of Gold Precious Metals. *Journal of Business and Management Research* Vol 4, No.1, 2016: 49-66.
- Mewoh, FM, Tampi, JRE, & Mukuan, DDS (2019). Digital Influence Marketing on Purchase Decisions at Matahari Department Store Manado Town Square. *Journal of Business Administration (JAB)*, 9(1), 35–42.
- Moekijat. (2000). Dictionary of Economic Terms. PT. Manda forward Bandung.
- Maria Lapriskia Dian Ela Revita, Agtovia Frimayasa, and Aris Kurniawan. 2018. The Effect of Product Quality on Purchase Decisions for Samsung Brand Smartphones. *Managerial – Journal of Management Science Research* Vol. 1 No. 1 2018.
- Moh. Azay Irawan. 2022. Consumer Behavior Analysis in Purchase Decisions for Mitsubishi L300 Brand Cars.
- Nita Dian Rizqy, Luk Luk Atul Hidayati, 2021. The Effect of Information Quality and Shopping Lifestyle E on Impulsive Purchases of Millennial Consumers in E-Commerce (Case Study on University Students of Muhammadiyah M Agelang). *Journal of Management Faculty of Economics and Business. Muhammadiyah University of Magelang*.
- Ni Nyoman Padang Cakra Binaraesa¹, Imam Hidayat², Marsudi Lestariningsih³. 2021 Store Atmosphere Moderates the Effect of Food Quality and Service Quality on Consumer Satisfaction (Study on Consumers of Moonk Cartil & Cafe Surabaya). *Journal of Marketing Management*, Vol. 15, No. 2.
- Paquette, H. (2013). Social media as a marketing tool: A literature review
- Sugiyono. 2017. Quantitative, Qualitative, and R&D Research Methods. Bandung: Alfabeta, CV.
- Rissa Mustika Sari; Prihartono. 2. 2021 Effect of Price and Product Quality on Purchase Decisions (Customer Survey of Rise Bed Sheet Products). *Scientific Journal of Mea (Management, Economics, and Accounting)* Vol. 5 No. 3, 202.
- Siti Khoziyah, Evawani Elysa Lubis. 2021. The Influence of Digital Marketing on Purchase Decisions for Followers Online Shop Instagram@ Kpopconnection. *Journal of Communication Studies* | Vol. 10 No.
- Tjiptono, Fandy. 2014, Service Marketing – Principles, Application, and Research, Andi Offset, Yogyakarta