

---

**The Effects of Perceived Value, Study Program Image, and Word of Mouth (WoM) on Purchasing Decisions of College of Economic Students in Central Java Province, Indonesia**

---

Lusia Wulandari Sutejo, Ida Aju Brahmasari, Nanis Susanti  
University of 17 Agustus 1945 Surabaya, Indonesia

**Abstract.** This study aimed to prove and analyze the effects of perceived value, study program image, and word of mouth (WoM) on purchasing decisions of College of Economics students (STIE) in Central Java Province, Indonesia. The number of population of this study was 27,781 students. The number of the sample of this study was 316 freshmen students of the College of Economics in Central Java Province. Data were collected using questionnaires and analyzed using multiple linear regression analysis. Results of the data analysis proved that perceived value has a significant positive effect on purchasing decisions; college image has a significant but negative effect on purchasing decisions; word of mouth has a significant and positive effect on purchasing decisions. Perceived value, image, and word of mouth simultaneously have a significant effect on purchasing decisions of College of Economics students (STIE) in Central Java Province, Indonesia.

**Keywords:** Perceived Value, Study Program Image, Word of Mouth (WoM), Purchasing Decisions

### **Introduction**

In the current era of globalization, global competition, global business, global companies, and global organizations emerged. These changes require high adaptability and accommodation from parties with an interest in the impact of globalization. Changes that occur in the global business environment also trigger the increasing intensity of competition between higher education service providers, so that each of the higher education service providers will strive to provide innovation in offering high-performance higher education services. Currently, educational institutions or in this case universities are centers of excellence, in the context of developing science, technology, and arts supported by professional administrators to implement excellent educational services.

A higher education institution is a strategic institution which is in producing competent and quality human resources, and can not hinder competition, the number of new students in Indonesia is increased every year. Indonesian Higher Education Statistics data showed that the number of freshmen students in 2018 was 1.732.308. The number of freshmen students, increase to 2.130.481 (approximately 22.9% increase) in 2019. Based on data from the Region VI Higher Education Service Institution in Central Java Province, Indonesia, there are 271 (two hundred and seventy-one) higher education institutions are categorized into six forms of higher education institutions, namely: college, academy, polytechnic, university, and institute.

College of Economics (STIE) is a tertiary institution that provides academic and/or vocational education within the disciplines of Economics. In order for a College of Economics (STIE) in Central Java Province, to win the competition among other higher education institutions in Indonesia, particularly in Central Java Province, a marketing strategy must be implemented effectively and efficiently. The creation and delivery of value to consumers and word of mouth as two variables may influence a new student and/or parent's purchasing decisions for his or her decisions to choose a college as a place to study. They may look for information or references first, and trust the opinions of those closest to them about a service product (provided by a college). Therefore, it is a very important concern that

economics colleges improve their images, so that they can exist in a very tight competition among higher education institutions, especially for those students who come from a low to the middle level of economic background.

The objectives of this study are to prove and analyze the effects of perceived value, study program image, and word of mouth on purchasing decisions of STIE freshmen students in Central Java Province, Indonesia.

## Literature Review

### Consumer Behavior

Setiadi (2019: 2) stated that consumer behavior is an action that is directly involved in getting, consuming, and spending a product or service including the decisions process that precedes and follows this action. Firmansyah (2018: 2) explained that consumer behavior is an activity that is closely related to the process of buying an item or service. Mangkunegara (2012: 39) stated that there are two strengths of the factors that influence consumer behavior. First is socio-cultural strength which consists of cultural factors, social level factors, role model factors, and family factors. Second, psychological strength consists of learning experiences, personality, attitudes and beliefs, and self-image.

### Perceived Value

Kotler and Armstrong (2014) explained that perception is a process by which a person can select, organize, and interpret information into a very valuable picture. When consumers enjoy a service at a certain cost, it is considered to be of value if the consumer gets a similar service from another company but requires more sacrifice. Based on the concept of perceived value, Indrawan (2019:110) agreed with Sweeney and Soutar (2001) who stated that the value or assessment perceived by consumers or service users is a multi-dimensional construct consisting of four sub-variables or variable indicators as follows:

1. Emotional value
2. Social value
3. Quality/performance value
4. Price/value for money

### Image

Kotler and Fox in Alves and Raposo (2010: 75) stated that an image is a sum of beliefs, ideas, and impressions that a person has in perceiving an object. Adriza (2015: 81) explained that image is a person's view, interpretation, and understanding of a particular object which can vary, depending on beliefs or the strength of the heart, ideas, or designs created in thoughts and impressions that appear as sensing results on an object, person, and/or institutional organization.

Brown and Mazzarol (2008: 86) in Dhany and Linda (2019: 146) explained that the dimensions of image measurement in an institution are categorized into three components as follows:

1. Learning environment (environmentally friendly point of view, supportive, innovative, more student-focused, and offers a good variety of courses)
2. Practical or practical (how practical the course focus is effective, flexible (for example, mid-year enrollment), and how guaranteed and the level of work is oriented towards the study program)
3. Conservative (long age the institution was founded)

### Word of Mouth (WoM)

Latief (2018: 17) stated that word of mouth marketing communication or word of mouth marketing is considered an independent marketing communication medium, is carried out by the community or consumers to other consumers, but provides benefits to companies or institutions on products or services which is the object of communication. Sumardy et al. (2011: 87) explained that word of mouth is an act of providing information by consumers to other consumers.

Babin et al. (2005: 136) stated that there are three sub-variables or variable indicators that are the reference in testing word of mouth (WOM) consist of:

1. Customers do the talking
2. Customers do promoting
3. Customers do selling

### Purchasing Decisions

Schiffman and Kanuk in Firmansyah (2018: 25) stated that a decisions is a selection of two or more choices. The availability of more than one choice is a must in decisions-making. According to Peter and Olson (2010), purchasing decisions is a process of combining knowledge to evaluate two or more alternative behaviors and choose one of these alternatives. Gajjar's study in Adriza (2015: 100) proved that consumer behavior is difficult to predict, even for experts in the field.

Kotler and Keller (2002), Haase, (2009) in Andriza (2015: 108-110) explained that the dimensions of purchasing decisions are as follows: (1) Attention, (2) Interest, (3) Desire, and (4) Action.

### Conceptual Framework

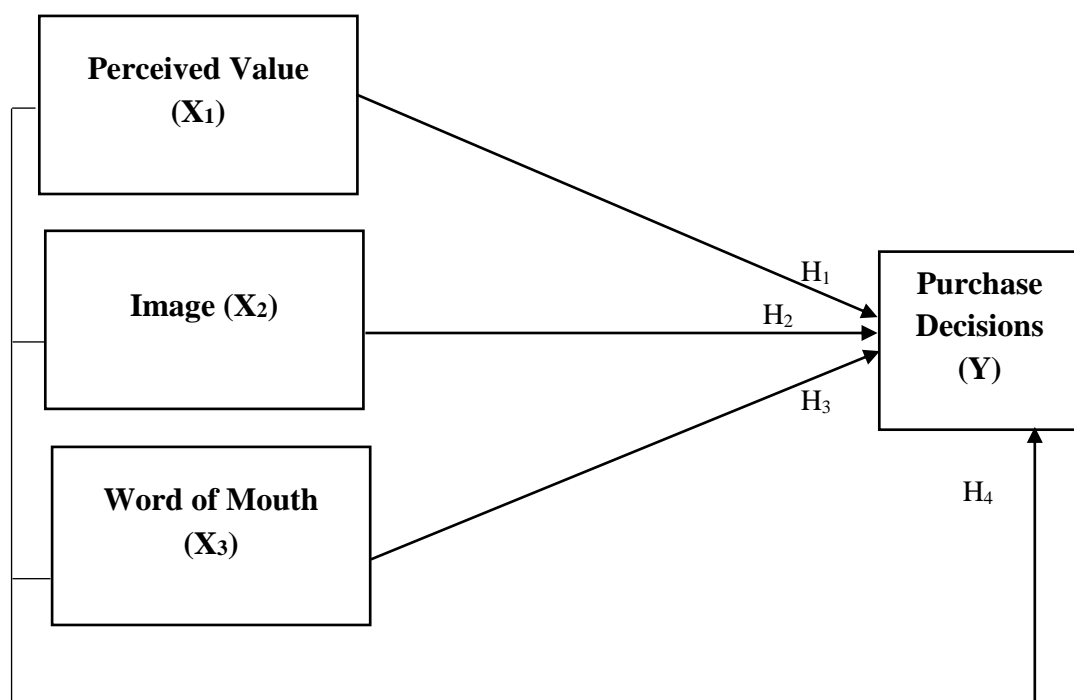


Figure 1. Conceptual Framework

## Hypothesis

Based on research objectives, literature reviews, and the above conceptual framework, four research hypotheses are formulated as follows:

### The Effect of Perceived Value on Purchase Decisions

Priansa study (2016: 123) proved that perceived value has a positive and significant effect on consumer decisions to shop at Lazada.co.id e-commerce services as evidenced by the significant value of perceived value influence on purchasing decisions on prospective consumers for purchasing decisions is  $0.000 < 0.05$  and the result of testing the coefficient of determination of the value of R Square ( $R^2$ ) is 0.569, which means that the effect of perceived value on consumer decisions to shop is 56.9% and the remaining 43.1% is influenced by other factors outside the study. Based on the literature reviews and the previous research, the first hypothesis can be formulated as follows:

*Hypothesis 1: Perceived value has a significant effect on purchasing decisions of students of the College of Economics (STIE) in Central Java Province, Indonesia.*

### The Effect of study program image on purchasing decisions

Sawaji study (2019: 71) proved that image plays an important role in influencing the consumer purchasing decisions. When consumers become prospective service users do not have complete information about products or services and brands, consumers or service users will use the image of the company or institution as the basis for purchasing decisions or decisions to choose a product and/or service. People sometimes do not like a product because of the company's image. Sawaji's study also proved that a university image variable has a significant positive influence on purchasing decisions with a probability value of 0.027 and a t-count value of 2.163 and fulfills the research hypothesis. A study conducted by Lubis and Hidayat (2017), Ruhamak and Husniati (2018) proved that image has no significant effect on purchasing decisions. Based on literature reviews and previous research, the second hypothesis in this study can be formulated as follows:

*Hypothesis 2: Image has a significant effect on purchasing decisions of students of the College of Economics (STIE) in Central Java Province, Indonesia.*

### The Effect of Word of Mouth (WOM) on Purchase Decisions

Word of mouth is buzz marketing which is an effort to attract the attention of consumers and the media to finally talk about products or services and even companies or institutions that are fun, amazing and valuable Hughes (2005:3). Someone will ask others about the quality of an item or service before they decide to buy or consume it. Word of mouth can influence a person's purchase decisions. Joesyiana's (2018) study proved that word of mouth has a significant positive influence on consumer purchasing decisions on online shop media in Pekanbaru. In line with the research results of Priansa (2016), Ruhamak and Husniati study (2018) proved that word of mouth has a significant and positive effect on consumer decisions. The words of mouth of people about an English village, in Kediri, Indonesia are accepted by consumers who will come to the English village to deepen their language skills. Based on the literature reviews and previous research, the third hypothesis can be formulated as follows:

*Hypothesis 3: Word of mouth (WoM) has a significant effect on purchasing decisions of students of the College of Economics (STIE) in Central Java Province, Indonesia.*

*Hypothesis 4: Perceived value, image, and word of mouth simultaneously have a significant effect on purchasing decisions of students of the College of Economics (STIE) in Central Java Province, Indonesia.*

### Research Methods

This study is a causal explanatory that will prove and explain the causal relationship between the independent variables, namely perceived value ( $X_1$ ), image ( $X_2$ ), and word of mouth ( $X_3$ ) on purchase decisions as a dependent variable ( $Y$ ) of the student of college of economics (STIE) in Central Java Province, Indonesia. The population of this study is 27,781 students of the college of economics in Central Java Province, Indonesia. Using the Slovin formula, it was found the number of samples was 394 freshmen students as respondents from twenty-four College of Economics (STIE) in Central Java Province, Indonesia.

### Results and Discussion

#### Characteristics of Respondents

**Table 1. Characteristics of Respondents**

Characteristics	Number of Respondents	Percentage
<b>Gender</b>		
Male	154	39%
Female	240	61%
Total / % =		394 Respondents (100%)
<b>Age</b>		
< 20 Years	74	19%
20 – 30 Years	316	80%
> 30 Years	4	1%
Total / % =		394 Respondents (100%)
<b>Student Active Period</b>		
< 1 Years	255	65%
$\geq$ 1 – 2 Years	132	33%
> 2 Years	7	2%
Total / % =		394 Respondents (100%)
<b>Choosing STIE Based on</b>		
Invited Friends	7	2%
Parent's Choice	155	39%
Own Choice	219	56%
STIE Promotion	13	3%
Total / % =		394 Respondents (100%)

This finding shows that respondents who study at the College of Economics (STIE) in Central Java Province, Indonesia are more dominated by female students than male students. This finding also shows that the respondents are students of varying ages, so it is not a specific main indication in measuring the effect of effective and efficient marketing management quality competencies and the existence of STIE in Central Java Province, Indonesia.

The respondents are dominated by respondents with the category of new students (freshmen) who study is less than 1 year (65%) and students whose active period is more than 1 year (33%). This study also indicates that students choosing STIE based on their own choice are dominant (56%), compared to those students choosing STIE based on STIE promotions (3%).

### Validity & Reliability Testing

**Table 2. Result of Validity Testing**

Variable	Items	Validity Test	
		Pearson Correlation	Sig. (2-tailed)
Perceived Value (X <sub>1</sub> )	X1.1.1	0.721	0.000
	X1.1.2	0.630	0.000
	X1.2.1	0.779	0.000
	X1.2.2	0.762	0.000
	X1.2.3	0.834	0.000
	X1.2.4	0.805	0.000
Image (X <sub>2</sub> )	X2.1.1	0.762	0.000
	X2.1.2	0.557	0.000
	X2.1.3	0.778	0.000
	X2.1.4	0.698	0.000
	X2.1.5	0.794	0.000
	X2.2.1	0.721	0.000
	X2.2.2	0.630	0.000
	X2.2.3	0.779	0.000
	X2.3.1	0.762	0.000
	X2.3.2	0.834	0.000
Word of Mouth (X <sub>3</sub> )	X3.1.1	0.749	0.000
	X3.1.2	0.741	0.000
	X3.1.3	0.739	0.000
	X3.1.4	0.686	0.000
	X3.2.1	0.701	0.000
	X3.2.2	0.788	0.000
	X3.2.3	0.745	0.000
	X3.3.1	0.781	0.000
	X3.3.2	0.655	0.000
	X3.4.1	0.762	0.000
	X3.4.2	0.557	0.000
	X3.5.1	0.778	0.000
	X3.5.2	0.698	0.000
Purchasing Decisions	Y1.1	0.794	0.000

(Y)	Y1.2	0.721	0.000
	Y1.3	0.630	0.000
	Y2.1	0.779	0.000
	Y2.2	0.762	0.000
	Y2.3	0.834	0.000
	Y3.1	0.805	0.000
	Y3.2	0.749	0.000
	Y3.3	0.741	0.000
	Y4.1	0.739	0.000
	Y4.2	0.686	0.000

Table 2 shows that all indicators have a value of  $r_{count} > r_{table} = 0.095$ . And the significance value  $< 0.05$ . All indicators are valid in reflecting variables and can be used for further analysis.

**Table 3. Result of Realibility Test**

Reliability Statistics	
Cronbach's Alpha	N of Items
.977	40

Table 3 shows the value of Cronbach's Alpha is  $0.977 > 0.6$ . Then the item can be said to be reliable and can be used for further analysis.

### Results of Hypothesis Testing

**Table 4. Result of t-Test (Partial)**

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.364	.431		-.845	.399
	Perceived value	1.312	.056	.708	23.558	.000
	Image	-.295	.042	-.252	-7.040	.000
	Word of Mouth	.472	.017	.564	27.440	.000
a. Dependent Variable: Purchasing Decisions						

Partial t-test results obtained sig value. the perceived value of 0.000, image of 0.000, and word of mouth of 0.000 where the value of the three variables is smaller than the value of  $= 0.05$ . Thus showing the value perception variable, word of mouth partially has a significant positive effect on purchasing decisions for students at the College of Economics in Central Java Province, Indonesia. However, the image variable has a value of  $t = -7.040$  which indicates that the image variable partially has a significant negative effect on purchasing decisions for economics high college students in Central Java Province, Indonesia.



**F Test (Simultaneous)****Table 5. Result of F-Test (Simultaneous)**

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12925.598	3	4308.533	4544.003	.000 <sup>b</sup>
	Residual	295.832	312	.948		
	Total	13221.430	315			
a. Dependent Variable: Purchasing Decisions						
b. Predictors: (Constant), Word of Mouth, Perceived Value, Image						

From the results of research data processing, obtained the value of sig. of 0.000. These results indicate that the variables perceived value, image, and word of mouth simultaneously have a significant effect on purchasing decisions for students of the college of economics in Central Java Province, Indonesia.

**Coefficient of Determination****Table 6. Coefficient of Determination**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.989 <sup>a</sup>	.978	.977	.97375
a. Predictors: (Constant), Word of Mouth, Perceived Value, Image				

The results of the coefficient of determination test show that the R Square value is 0.978 or 97.8%, which means that the ability of the value perception model, image, and word of mouth in explaining purchasing decisions to students of the College of Economics in Central Java Province, Indonesia is 97.8%. The remaining 2.2% can be explained by various other variables besides the value perception variable, image, and word of mouth.

**Multiple Linear Regression****Table 7. Multiple Linear Regression**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.364	.431		-.845	.399
	Perceived value	1.312	.056	.708	23.558	.000
	Image	-.295	.042	-.252	-7.040	.000
	Word of Mouth	.472	.017	.564	27.440	.000
a. Dependent Variable: Purchasing Decisions						

Based on the above results of multiple linear regression analysis, it can be concluded that the equations model of Linear Regression is as follows:

$$Y = -0,364 + 1,312X_1 - 0,295X_2 + 0,472X_3 + e$$



From the multiple linear regression equation above, it can be informed that:

1. The constant value on the Y variable is -0.364, which means that if the perception of value, image, and word of mouth is constant, the level of purchasing decisions is -0.364.
2. The value of the regression coefficient of perception of value ( $X_1$ ) is 1.312. If the perceived value variable ( $X_1$ ) increases by one unit, the purchasing decisions (Y) will increase by 1.312. Assuming that the other variables are in a constant state.
3. The value of the image regression coefficient ( $X_2$ ) is -0.295. If the image variable ( $X_2$ ) increases by one unit, the purchasing decisions (Y) will decrease by 0.295. Another assumption is that the variables in this study are constant.
4. The value of the word of mouth regression coefficient ( $X_3$ ) is 0.472. If the word of mouth variable ( $X_3$ ) increases by one unit, the purchasing decisions (Y) will increase by 0.472. Another assumption is that the variables in this study are constant.

### Discussion

1. The effect of perceived value on purchasing decisions of students of the College of Economics in Central Java Province, Indonesia.  
Perceived value has a significant positive effect on purchasing decisions of students of the College of Economics (STIE) in Central Java Province. It explained that the student's perceived value of College of Economics in Central Java Province effect significantly on his or her decisions to choose STIE in Central Java Province to study. The result confirmed the theory stated by Kotler and Armstrong (2014) also Sweeney and Soutar (2001). The result also support the findings of the study conducted by Priansa (2016: 123).
2. The effect of study program image on purchasing decisions of students of the College of Economics in Central Java Province, Indonesia.  
Study program image has significant, but a negative effect on purchasing decisions of students of the College of Economics in Central Java Province, Indonesia. Even though the image of STIE study program is good, it is not the main consideration for student in purchasing decisions to choose STIE as the image of the STIE study program in Central Java Province, Indonesia, is undoubted. Furthermore, the tuition and fees in STIE is more affordable compared to tuition and fees in any university or institute in Central Java Province, Indonesia. The result could not confirm a theory stated by Brown and Mazarol (2008: 86) in Dhany and Linda (2019: 146). The study differs from the studies conducted by Lubis and Hidayat (2017), Ruhamak and Husniati (2018) which proved that image has no significant effect on purchasing decisions.
3. The effect of word of mouth on purchasing decisions of students of the College of Economics in Central Java Province, Indonesia.  
Word of mouth has a significant and positive effect on purchasing decisions of students at the College of Economics in Central Java Province, Indonesia. Word of mouth is an effort to attract public and media attention to promote products or services of STIE institutions in Central Java Province. This study confirmed theories stated by Hughes (2005: 3) and Babin et al. (2005: 136). The result supports a number of studies conducted by Joesyiana (2018), Priansa (2016), Ruhamak and Husniati (2018) which proved that word of mouth has significant and positive effects on consumer decisions.
4. The effect of perceived value, study program image, and word of mouth on purchasing decisions on students of the College of Economics in Central Java Province, Indonesia.  
The perceived value, image, and word of mouth variables simultaneously have a significant effect on purchasing decisions of students of the College of Economics in Central Java Province, Indonesia.

## Conclusion

Based on the research problems, literature reviews, and data analysis, the following conclusions can be drawn:

1. Perceived value has a significant and positive effect on purchasing decisions for students at the College of Economics in Central Java Province, Indonesia.
2. Study program image has a significant, but negative effect on purchasing decisions of students of the College of Economics in Central Java Province, Indonesia.
3. Word of Mouth has a significant and positive effect on purchasing decisions for students at the College of Economics in Central Java Province, Indonesia.
4. Perception of value, image, and word of mouth simultaneously have a significant effect on purchasing decisions in students of the College of Economics in Central Java Province, Indonesia.

## References

- Adriza (2015). *Membangun Citra Lembaga Perguruan Tinggi yang Berbasis Vokasi*, Yogyakarta, Deepublish (Group Penerbit CV Budi Utama), Cetakan Ke-1, Edisi Kesatu.
- Alves, H., & Raposo, M. (2010). The influence of university image on student behaviour. *International Journal of Educational Management*, 24(1), 73-85. DOI: 10.1108/09513541011013060.
- Babin, B. J., Lee, Y. K., Kim, E. J., & Griffin, M. (2005). Modeling consumer satisfaction and word-of-mouth: restaurant patronage in Korea. *Journal of Services Marketing*, 19(3), 133-139. DOI: 10.1108/08876040510596803.
- Firmansyah, M. A. (2018). *PERILAKU KONSUMEN (Sikap dan Pemasaran)*, Yogyakarta, Deepublish (Group Penerbit CV Penerbit Quara Media), Cetakan Ke-1.
- Indrawan, Y. W. (2019). Pengaruh Kualitas Pelayanan dan Persepsi Nilai Terhadap Kepuasan serta Implikasinya Pada Loyalitas Mahasiswa Perguruan Tinggi Swasta X. *Jurnal Ilmiah Feasible Bisnis, Kewirausahaan dan Koperasi*, 1(2), 106-122.
- Joesyiana, K. (2018). Pengaruh Word of Mouth Terhadap Keputusan Pembelian Konsumen Pada Media Online Shop Shopee di Pekanbaru. *Jurnal Valuta*, 4(1), 71-85.
- Kotler, P. & Armstrong, G. (2014). *Principles of Marketing* [14th ed.]. New Jersey, Pearson Prentice Hall.
- Latief, R. (2018). *Word of Mouth Communication*. Penjualan Produk, Surabaya, Media Sahabat Cendekia.
- Lubis, D. I. D., & Hidayat, R. (2017). Pengaruh Citra Merek dan Harga terhadap Keputusan Pembelian pada Sekolah Tinggi Ilmu Manajemen Sukma Medan. *Jurnal Ilman: Jurnal Ilmu Manajemen*, 5(1), 15-24. DOI: 10.35126/ilman.v5i1.22
- Mangkunegara, A. A., & Anwar, P. (2012). *Perilaku Konsumen*. Bandung, Rafika Aditama, Edisi Revisi.
- Peter, P. & Olson, J. C. (2010). *Consumer Behavior & Marketing Strategy* [9th ed.]. New York, McGraw-Hill International Edition.
- Priansa, D. J. (2016). Pengaruh E-WOM dan Persepsi Nilai Terhadap Keputusan Konsumen Untuk Berbelanja Online di Lazada. *Jurnal Ekonomi, Manajemen, dan Bisnis*, 4(1), 117-124.
- Ruhamak, M. D., & Husniati, S. E. (2018). Pengaruh Word Of Mouth, Minat Konsumen Dan Brand Image Terhadap Keputusan Konsumen (Studi Pada Pelajar Lembaga Kursus Di Area Kampung Inggris Pare). *Jurnal Ekonika: Jurnal Ekonomi Universitas Kadiri*, 3(2), 118-135.

- Sawaji, J. (2019). Dampak Citra Perguruan Tinggi Guna Meningkatkan Motivasi, Sikap, dan Pengembangan Keputusan Mahasiswa Memilih PTS di Sulawesi Selatan. *Jurnal Manajemen Bisnis (JMB)*, 6(2), 69-76. DOI: 10.33096/jmb.v6i2.306.
- Setiadi, N. J. (2019). *Perilaku Konsumen: Perspektif Kontemporer pada Motif, Tujuan dan Keinginan Konsumen*. Jakarta, Pranada Media Group (Devisi Kencana), Cetakan Ke-7, Edisi Ketiga.
- Sumardy, M. S. & Melone, M. (2011). *The Power of Word of Mouth Marketing*. Jakarta, PT Gramedia Pustaka Utama.