

Analysis The Effect of Technology Improvement Towards Human Lifestyle (Case Study : Online Ojek)

**Aprilliyana Dwi Sakti^{1*}, Rifai Kukuh Widiyanto², Nursery Alfaridi Nasution³,
Anton Ferdiansyah⁴, Yogi Ashari⁵**

^{1,2,3,4,5}Institut Transportasi dan Logistik Trisakti, Jakarta, Indonesia

*Corresponding Author : Aprillyds28@gmail.com

Abstract

Currently, technology has been massively developed and affected modern human lifestyle in many fields. One of rapidly growing lifestyles is the internet, which has supported many fields to grow, for the example, transportation services. This research aims to determine the effects of online ojek technology improvement towards human lifestyle with a total of 95 respondents, which are described according to gender, age and frequency of using online ojek. This research uses two variables. The first is technology improvement variable as independent variable by using two research dimensions: benefit and effectiveness. The second variable is human lifestyle variable as dependent variable by using three research dimensions: activities, interests and opinions. The regression equation in this research is $Y = 5.435 + 0.822X$. Based on the results of a simple correlation analysis, it is obtained that the correlation reaches 0.805 which means there is a very strong and positive relationship between two variables. On the other hand, based on the calculation of determination that the authors research, the results variant that occurs in human lifestyle variable is 64.7% determined by variant that occurs in technology improvement variable.

Keywords: Technology Development, Lifestyle, Transportation, Online Transportation

Introduction

Transportation is displacement of human or goods from point of origin to point of destination either on the road, sea and air. Road transport is the type of transportation specifically in the note by the Indonesian Government because the trends tend to be higher than other types of transport. Road transport always becomes the public interest because it is cheap and serves as a popular kind of transport for the most Indonesian people. Based on this, the reliance of society towards particular road transport increases with the pretext to shorten travel time. (Imam, Hafis, Hakim, & Haryono, 2013; Mardikawati & Farida, 2013; Rifaldi, Kaduci, & Sulistyowati, 2016).

Progress in information technology provides positive influence towards aspects of human life, one of the progress that affects human life is internet. Internet as a network that is paired with communication tools, enables people to interact wherever and whenever. With the existence of these advances, practicality becomes the issue that changes the way companies do a transaction to make it faster and easier than ever before. (Rifaldi et al., 2016).

Muhamad Ngafifi in *‘Kemajuan Teknologi dan Pola Hidup Manusia dalam Perspektif Sosial Budaya’* wrote, technology is one aspect that affect every activity, action, and human behavior. Technology can change scheme of relationship and interaction between human. Technology is a thing that can't be separated from human life. Human activities will be more or less affected by technology. (Ngafifi, 2014).

Internet is now truly needed by the community especially with the presence of services from the online transportation which needs an internet connection. Therefore, it results on some activities that are getting faster and done in an instant. Online transportation is a transportation service where customers can book trips (cars, ojek, etc.) through applications on mobile phones and drivers can receive orders through apps (Silalahi, Handayani, & Munajat, 2017). Ojek is one of the online transportation modes which is used by the Jakartans in particular. Ojek is passenger transportation using a motorcycle. The increasing of Ojek is also supported by the increasing ownership of motorbikes (Amajida, 2016). Online application-based transportation, also provides food ordering services, delivery of goods and shopping that can be used by housewives or home entrepreneurs. (Slaudiya Anjani Septi Damayanti, n.d.).

In 1989, Fred D. Davis researching about *‘A Technology Acceptance Model for Empirically Testing New End-User Information Systems’* explained that humans would be easy to be attracted to use the new technology if the technology offered Perceived Usefulness, Perceived Ease of Use, and could help or provide their activities (Davis, 1989).

In *“Pengaruh Gaya Hidup dan Persepsi Mahasiswa Terhadap Keputusan Pembelian Secara Online di Kota Palembang”*, Sri Rahayu, Zuhriyah & Silvia Bonita said that online shopping (goods or services) can change people's lifestyle in an instant because majority of respondents in this research agreed with the stigma that the reasons for shopping online were that it was cheap, easy and not draining. In addition to the predilection factor in using internet, it can also affect someone's to shop online (Sri Rahayu, Zuhriyah, n.d.).

In this case, online transportation exists to facilitate and provide the provision of facilities to fulfill the mobilization of society itself. In addition, the ease factor in operation can also cause human to easily get attracted to this new technology. Moreover, online transportation provides service based on the application that is simple and can be operated anywhere and anytime.

Akbar Hidayat, Dewi Anggraini & Firmansyah Wahyu Pratama in *“Analisa pengaruh GO-JEK terhadap mobilitas masyarakat”* concluded that from out of 100 total respondents 87.39% expressed positive responses to GO-JEK application (online ojek) in Indonesia. Furthermore, the research stated that go-jek had a significant effect towards human mobility. (Akbar Hidayat; Dewi Anggraini; Firmansyah Wahyu Pratama, 2016).

Rizky Septiani, Putu Wuri Handayani, Fatimah Azzahro in *“Factors that Affecting Behavioral Intention in Online Transportation Service: Case study of GO-JEK”* concluded that perceived ease of use which was one of the research dimensions showed positive impacts on behavioral intention. This might be due to the easiness and user's knowledge on GO-JEK application that made users feel more competent.

Online ojek perceives great demand by the public because it has several advantages that make people comfortable in using it. However, it also has several points of shortcomings. Advantages and disadvantages will be classified as follows:

Table 1. Strengths and Weaknesses of Online Ojek

<i>ADVANTAGE OF ONLINE OJEK</i>	<i>DISADVANTAGE OF ONLINE OJEK</i>
a. People can find out the identity of the driver	a. Give a negative impact on the conventional transportation industry
b. It tends to be more practical, efficient and cheaper than conventional transportation	b. Public unrest about the privacy of users of data and identities that have been input into the online Transportation application
c. Online transportation users can find out the strategic location of the vehicle they have ordered	c. Sometimes the server errors so that various errors occur

Source : (Anindhita : 2016) (Kurnianti, 2017) (Akbar Hidayat; Dewi Anggraini; Firmansyah Wahyu Pratama, 2016) (Abu Amar Fauzi, S.S., 2018)

In the era of globalizations, apparently it is not only the development of technology that becomes sophisticated but it also happens to human lifesyle now that becomes modern and super easy.

So we can conclude that the presence of online transportation has become a new breakthrough that results in the changes of behavior of modern society itself. In other words, its presence can change the map of national transportation industry in a short time. However, some conventional transportation business holders do not consider it as a business strategy. In fact, slowly but sure this online transport begins to change the pattern of lifestyle and mindset of society (Abu Amar Fauzi, S.S., 2018)(Fitria, 2015).

From the background described above, the authors decide to analyze the effects of technology improvement towards human lifestyle, especially in the case of online ojek.

Method

In this research, the authors aim to know about how the technology improvement affects human life style by using descriptive quantitative on regression formula to see how much the impact between two variables.

In the previous research by Nur Maflikhah (2010) entitled “*Peran teknologi informasi pada niat untuk mendorong knowledge sharing karyawan sekretariat daerah pemerintah kota Surakarta*”, some dimensions about technology

improvement variables were provided with the following dimensions and indicators:

Tabel 2. Source Peran teknologi informasi pada niat untuk mendorong knowledge sharing karyawan sekretariat daerah pemerintah kota Surakarta

Dimensions	Indicators
1. Benefit	Makes job easier, becomes Useful, Increases productivity.
2. Effectiveness	Enhances effectiveness, improves the job performance

For dimensions and indicators in the next variable (Lifestyle), this research referred to the research by Habibi in 2014 with the title “ *Pengaruh Dimensi Gaya Hidup Terhadap Keputusan Pembelian Smartphone Blackberry Di Purworejo*”. This study mentioned several dimensions and indicators including:

Tabel 3. Source Pengaruh Dimensi Gaya Hidup Terhadap Keputusan Pembelian Smartphone Blackberry Di Purworejo, Mandey (2009), Utama (2011), Setiadi, (2010:78) & Women (2010: 56-64)

Dimensions	Indicators
1. Activities	Jobs and hobbies
2. Interest	Like the products offered, the products offered are as needed, interests because of quality products
3. Opinion	Products are part of the lifestyle, the products offered are various, the prices of products are competitive

Because of time limit, the authors tried to take several samples as research objects. Determination of the number of samples in this research referred to expert opinion from Husein Umar (2008), which mentioned that determination of samples minimum number could be based on the number of indicators, at least five times. Because the number of indicators in this research amounted to 13, so the appropriate number of respondents was $5 \times 13 = 65$ respondents. Authors decided to use all 95 respondents who had filled out the questionnaire so the data processing will be more effective. Data collection techniques in this research was by compiling a list of statements or questionnaires that were distributed to respondents, then the data was collected. In order to know how intense the respondents agreed or disagreed with the statements in the questionnaire, then we used interval scale through a likert scale or a 5-point scale.

Discussion and Result

Based on the results of our research, data recapitulation taken from the characteristics of respondents can be seen as follow:

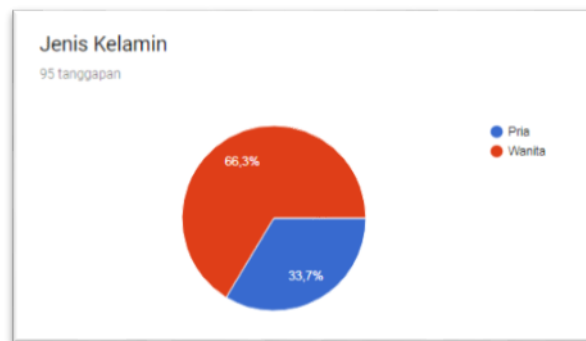


Figure 1. Characteristics of Respondents by Gender

From figure 1. above we can see the majority of respondents is women with 66.3% while the number of male respondents equals to only 33.7%.

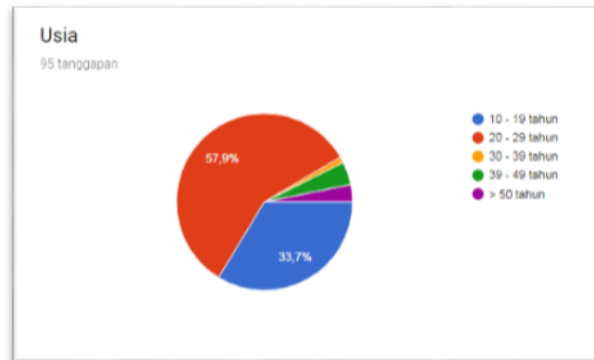


Figure 2. Characteristics of Respondents by Age

From figure 2. above we can see the highest range of respondents age is in the range of 20-29 years of age with 57.9% out of 95 respondents, the second place with 33.7% is in the range of 10-19 years, while the third with 24.2% is at the age of 30 -> 50 years.



Figure 3. Characteristics of Respondents by frequency of using online ojek

From figure 3. above we can see the percentage of respondents used online ojek in one week. 45.3% of respondents uses 1-3 online ojek in a week, 22.1% of respondents uses it 4-9 times a week and 10.5% of respondents never uses online ojek.

The validity of each variable can be seen below:

Table 4. Technology Improvement Validity Test

Items	r count	r table 5% (95)	Note
1	0.723	0.202	VALID
2	0.658	0.202	VALID
3	0.615	0.202	VALID
4	0.784	0.202	VALID
5	0.676	0.202	VALID
6	0.549	0.202	VALID
7	0.732	0.202	VALID
8	0.687	0.202	VALID
9	0.739	0.202	VALID

Table 5. Human Lifestyle Validity Test

10	0.764	0.202	VALID
11	0.794	0.202	VALID
12	0.546	0,202	VALID
13	0.445	0.202	VALID
14	0.680	0.202	VALID
15	0.710	0.202	VALID
16	0.766	0.202	VALID
17	0.669	0.202	VALID
18	0.579	0.202	VALID

From table 4 and table 5 above, we can see that all questionnaire instruments from both variables (X) & (Y) that have been distributed to the respondents are valid because r count is bigger than r table. After collecting and processing questionnaires that have been distributed, the results of reliability test can be seen in the following table:

Table 6. The Results of Reliability Test

Variabel	r reliability	r table 5% (95)	Term
Technology Improvement	0.852	0.202	Reliable
Human Lifestyle	0.839	0.202	Reliable

Based on the results of recapitulation and calculation of the data, then each variable generates alpha value which exceeds the r table value of 0.202. So we can conclude the indicators and questionnaires that we have distributed are reliable or consistent, because all indicators show the percentage of respondents' answers in the questionnaire with majority of responses strongly agree and agree.

Before conducting a linear regression test, the normality and linearity of the data must be tested first.

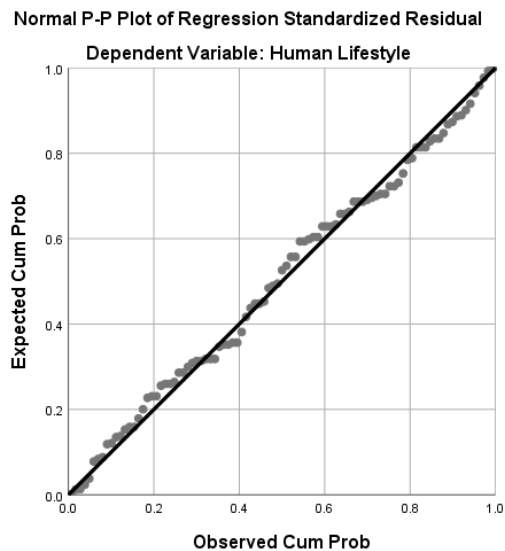


Figure 4. Graph P – Plot

As you can see from the graph above, the data or points spread around the diagonal line and follow the direction of diagonal line, it means the data are

normally distributed and the regression model in this research fulfills the assumption of normality.

Tabel 7. Anova Table

			Sum of Squares	df	Mean Square	F	Sig.
Human Lifestyle * Technology Improvement	Between Groups	(Combined)	1403.608	18	77.978	10.029	.000
		Linearity	1291.363	1	1291.363	166.086	.000
		Deviation from Linearity	112.245	17	6.603	.849	.633
	Within Groups		590.918	76	7.775		
	Total		1994.526	94			

According to Joko Widiyanto's book "SPSS For Windows", he said, if the sig. value Deviation from linearity is > 0.05 then there is a linear correlation between the independent variable and the dependent variable and otherwise if the sig. value Deviation from linearity is < 0.05 then there is a nonlinear correlation between the independent variable and the dependent variable (Widiyanto, 2012).

So, based on the results of linearity test in the table above, sig. Deviation from linearity is 0.633, in other words > 0.05 , so we can conclude, there is a linear correlation between technology improvements towards human lifestyle.

Table 8. The Result of Simple Regression Linear Test

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	5.435	2.304		.020
	Technology Improvement	.822	.063	.805	.000
a. Dependent Variable: Human Lifestyle					

The regression equation is as follows:

$$Y = 5.435 + 0.822X$$

In this equation, the constant is 5.435, it means consistent value of lifestyle variable is 5.435. Meanwhile, the regression coefficient X is 0.822 claiming that every addition of one value or number value in technology improvement (X), can affect the value of lifestyle (Y) and increases by 0.822. The regression coefficient is positive, so it can be concluded that the direction of variable influence (X) on (Y) is positive.

Table 9. The Results of Simple Correlation Test

Correlations			
		Technology Improvement	Human Lifestyle
Technology Improvement	Pearson Correlation	1	.805**
	Sig. (2-tailed)		.000
	N	95	95
Human Lifestyle	Pearson Correlation	.805**	1
	Sig. (2-tailed)	.000	
	N	95	95
**. Correlation is significant at the 0.01 level (2-tailed).			

If the score of significant data (2-tailed) is < 0.05 , it means there is a correlation between the two variables whereas if the score of significant data (2-tailed) is > 0.05 , then there is no correlation between the variables. Based on the results of a simple correlation test in the table above, the score of significant data (2-tailed) for both variables equals to 0.000, so we can conclude that one variable correlates with the other because the score is < 0.05 .

The correlation coefficient (R) between technology improvement variables (X) and lifestyle (Y) is 0.805. Based on the correlation interpretation guidelines

proposed by (Sugiyono, 2012) , it can be concluded that there is a very strong (0.80 – 1.00) correlation between technology improvement variables (X) and human lifestyles (Y).

Table 10. The Result of Determination Coefficient R^2

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 ^a	.647	.644	2.74971
a. Predictors: (Constant), Technology Improvement				

The table above shows that the correlation value (R) is 0.805. The results of determination coefficient (R^2) is 0.647. The index shows determination because the percentage to the variable affecting technology improvement towards human lifestyle is 64.7% ($0.647 \times 100\%$) and 35.3% ($100\% - 64.7\%$) affected more by other factors.

Table 11. The Results of T Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.435	2.304		2.359	.020
	Technology Improvement	.822	.063	.805	13.069	.000
a. Dependent Variable: Human Lifestyle						

The T count is 13.069 and it is bigger than T table ($n = 95$) which is 1.985. So technology improvement towards human lifestyle has a positive effect. On the other hand, the value of significant is 0.000, it means H_0 is rejected and H_A is accepted. If H_0 is rejected then there is a significant effect between the two

variables. The conclusion is, technology improvement has a positive and significant effect towards human lifestyle.

Conclusion

Based on the analysis of the effect of technology improvement towards human lifestyle (in case study of online transportation), it can be summed up as follows:

- a. Variable technology improvement towards variable human lifestyle has a linear correlation, because the deviation from linearity is 0.633 which is bigger than 0.05.
- b. The results of the simple linear regression test gain the same calculation as follows: $Y = 5.435 + 0.822X$, where Y is the variable of lifestyle and X is the variable of technology improvement. In this equation 5.435 is consistent meaning that every addition of one number or value in technology improvement (X) increases the value of lifestyle (Y) by 0.822. The regression coefficient is positive, so it can be concluded that the direction of variable influence (X) on (Y) is positive.
- c. The results of the simple correlation (R) is 0.805. This means that the correlation between the improvement of technology toward human lifestyle at the level of very strong (0.80 – 1.00).
- d. The result coefficient of determination (R Square) is 0.647. It means the technology improvement can affect human lifestyles with score equals to 64.7%% (0, 647x100%) and 35.3% (100%-64.7%) is more affected by other factors which is not in this research.
- e. The technology improvement has a positive and significant effect towards human lifestyle because the T count is higher than T table and the

significant value is 0.00 which means that H_0 is rejected and H_A is accepted.

References

- Abu Amar Fauzi, S.S., M. (2018). Fenomena Transportasi Online: Sebuah Perspektif Perilaku Konsumen. Retrieved From <https://www.perbanas.ac.id/component/K2/item/689-Fenomena-Transportasi-Online-Sebuah-Perspektif-Perilaku-Konsumen>
- Akbar Hidayat; Dewi Anggraini; Firmansyah Wahyu Pratama. (2016). Analisa Pengaruh Go-Jek Terhadap Mobilitas Masyarakat. Retrieved From <http://dewianggraini96.blogspot.com/2016/12/paper-analisa-pengaruh-gojek-terhadap.html>
- Amajida, F. D. (2016). Kreativitas Digital Dalam Masyarakat Risiko Perkotaan: Studi Tentang Ojek Online “Go-Jek” Di Jakarta. *Informasi*, 46(1), 115–128. <https://doi.org/10.21831/informasi.v46i1.9657>
- Davis, F. (1989). *A Technology Acceptance Model For Empirically Testing New End-User Information Systems*. Retrieved From <https://www.jstor.org/stable/249008>
- Fitria, E. M. (2015). Dampak Online Shop Di Instagram Dalam Perubahan Gaya Hidup Konsumtif Perempuan Shopaholic Di Samarinda. *Ejurnal Ilmu Komunikasi*, 1(3), 117–128.
- Habibi, M. (2014). Pengaruh Dimensi Gaya Hidup Terhadap Keputusan Pembelian Smartphone Blackberry Di Purworejo. *Segmen-Manajemen*, 1–10. Retrieved From <http://ejournal.umpwr.ac.id/index.php/segmen/article/view/1265>
- Husein Umar. (2008). *Metode Penelitian Untuk Skripsi Dan Tesis Bisnis*.
- Imam, R., Hafis, A., Hakim, A., & Haryono, B. S. (2013). Aktor Pelaksana Pengelolaan Transportasi Publik Perkotaan Studi Kasus Bus Trans Metro Di Kota Pekanbaru. *Aktor Pelaksana Pengelolaan Transportasi Publik Perkotaan Studi Kasus Bus Trans Metro Di Kota Pekanbaru*, 16(4), 171–178.

- Kurnianti, A. W. (2017). Komunikasi Pemasaran Transportasi Online Nguberjek. *Jurnal Komunikasi Dan Kajian Media*, 1(39), 69–85.
- Mardikawati, W., & Farida, N. (2013). Loyalitas Pelanggan , Melalui Kepuasan Pelanggan Pada Pelanggan Bus Efisiensi (Studi Po Efisiensi Jurusan Yogyakarta-Cilacap). *Jurnal Administrasi Bisnis*, 2(1), 64–75.
- Rifaldi, Kaduci, & Sulistyowati. (2016). Pengaruh Kualitas Pelayanan Transportasi Online Gojek Terhadap Kepuasan Pelanggan Pada Mahasiswa/I Administrasi Niaga Politeknik Negeri Jakarta. *Epigram*, 13(2), 121–128.
- Slaudiya Anjani Septi Damayanti. (N.D.). Transportasi Berbasis Aplikasi Online: Go - Jek Sebagai Sarana Transportasi Masyarakat Kota Surabaya, 0713114330(C), 1–4.
- Sri Rahayu, Zuhriyah, S. B. (N.D.). Pengaruh Gaya Hidup Dan Persepsi Mahasiswa Terhadap Keputusan Pembelian Secara Online Di Kota Palembang.
- Widiyanto, J. (2012). *Spss For Windows*.