



FACTOR ANALYSIS OF INCREASING CUSTOMER LOYALTY IN THE AUTOMOTIVE INDUSTRY

Annisa Tri Wahyuni, Triwulandari SD, Rina Fitriana

Magister Teknik Industri FTI Universitas Trisakti

Email: 163012110015@std.trisakti.ac.id, triwulandari_sd@trisakti.ac.id, rinaf@trisakti.ac.id

ABSTRACT

This study aims to analyze the factors that influence loyalty in the automotive industry. The population of this study are car owners who live in Jabotabek . Using two types of questionnaires, namely the screening questionnaire and the main questionnaire consisting of 27 indicators. Probability sampling was used in determining the sample so that 135 samples were obtained which were dominated by Toyota and Honda brand users with the MVP segment. Factor analysis was carried out using the SEM (structural equation model) method with Smart PLS software and tested the validity, Cronbach's Alpha reliability test and goodness of fit to test the structural model. The results showed that among the 3 variables, namely brand image, product and staff, only brand image proved to have a positive and significant effect on loyalty (50.1%), while the product and staff variables had no significant effect. With the results of this study, it is hoped that ATPM can maintain the loyalty of their customers by continuing to improve their brand image by paying attention to 7 indicators, namely reliable, advanced, challenging, creative, sophisticated, luxury and sustainable.

Keywords : loyalty, brand image, product, staff, SEM

INTRODUCTION

Industry automotive is industry with promising growth _ every the year . Data from the Ministry of Industry records that in the 2nd quarter of 2022, the industry automotive grow amounting to 7.35% (Komalasari et al., 2022). This figure is even higher compared to number growth industry in a way general namely 4.33%.

This growth is supported by its height number sale vehicle wheel four in Indonesia. At the end of November 2022, it was recorded that total sales vehicle wheel four in Indonesia reached 941 thousand units. This figure is enhancement by 19.2% in comparison previous year (Raharja & Karim, 2022).

Growth industry automotive as well as sale vehicle wheel these four high ones are getting trigger exists high competition _ between company agent single holder brand (ATPM) of the vehicle wheel four in Indonesia. Combined Industry Vehicle Motorized Indonesia (GAKINDO) said

that happen tough competition _ between company cars in Indonesia. In April 2022, Toyota, Daihatsu, and Honda still leading in the rankings three big .

On the other hand , apart from faced with high competition , companies in the industry Automotive is also faced with problems related loyalty consumer . Consumers or users cars in Indonesia can be said tend to be less loyal and easy replace vehicle his car . Research conducted by HIS Automotive in 2015 found that Asians, including Indonesians, have tendency to replace vehicle car every 6.5 years (Rachmanto et al., 2015). This figure is lower than Americans tend to replace car every 11.5 years .

Discussion about customer is a very important aspect for companies to pay attention to . Customers with high loyalty are very likely to do so repeat purchases and contribute to the increase price as well as good word of mouth (Dan et al., 2021). Loyalty to users cars in industry automotive will deliver on his loyalty to One brand car as well as his willingness to experience give recommendation positive to his relatives about brand car that . According to (Kato, 2021) there are 4 indicators loyalty customer automotive that is preference , recommendation , repurchase and WTP (Want to Pay).

There are several factors that are considered important in influencing loyalty customer . Three of them factor the namely brand image, products, and staff. Brand image according to (Kotler & Keller, 2016) is a view consumer related brand certain things radiated by the association brand is in memory customer . Meanwhile (Schiffman et al., 2009) states that brand image is a perception about a brand that lasts a long time because formed from experience and character consistent . So the brand image is in context This research is perception consumer related brand car certain ones that last a long time because formed from experience interact with brands that . There are 7 brand image indicators , namely reliable , advanced, challenging, creative, shoplike , luxury, and sustainable (Kato, 2021).

According to (Keller, 2016) product or product quality is a measure Power product efforts to implement its function as promised _ consumer . Whereas According to (Schiffman & Kanuk, 2009), product quality is capability producer give characteristic typical each the product so that identified by consumers . So that product quality in context this research is capability producer car to deliver products that have characteristic distinctive and doable function in accordance hope consumer . As for automotive product indicators according to (Kato, 2021) consists of 8 indicators namely : driving, usability, design , fuel economy, safety , quality , price and technology .

Staff or quality variables Staff services in this research consist of 8 indicators that is convenience communication , speed of response, expertise , empathy , politeness , methodical, reliability , and appearance (Kato, 2021). Quality service become important topics in research _ because it can relate and influence other variables that have an impact directly to the company (Murgani & Hasibuan, 2022). Quality of course it must be in accordance with what is promised to consumers (Tannady et al., 2022) Quality service according to (Kotler & Keller, 2016) is an assessment related level perceived service _ consumers with levels promised service _ provider service . Meanwhile (Tjiptono et al., 2022) defines quality service as a measure Good or not level services provided _ producer meets expectations or not consumer . So that staff are in context This research is an assessment from consumer automotive related level perceived service level _ _ service promised by the manufacturer automotive that .

Some research related influencing factors _ loyalty customers like (Kato, 2021) who discovered the most effective influencing factors Loyalty is a product factor (design and usability) and staff (familiarity is more effective). compared to specialties). Subsequent research by (Jørgensen et al., 2016) found older consumers by type _ sex men are more loyal to brand car certain .

Research (Kato, 2019) proves this that experience visiting the showroom has no effect intention recommendations (indicators loyalty) related brand car certain . Then research (M. Mabkhot et al., 2021) proves that consumer will be loyal if The automobile company provides a good image and satisfactory quality need customer as well as let consumer trust the brand .

The novelty in this research aside using 7 brands car best-selling in Indonesia in 2022 as an object research also makes variable quality more specific services become staff variables . The staff variable consists of 8 indicators Specific that is convenience communication , speed of response, expertise , empathy , politeness , methodical, reliable , and appearance . Methodical indicators that are realized in staff activities provide clear and useful information related cars for sale also become novelty this research . This research does not only analyze One influencing factors _ loyalty in the industry automotive such as research (Tarumingkeng, 2019) which only uses variable quality service whereas research conducted _ researcher use three variable free .

METHOD

This research is of the type quantitative with assisted SEM (Structural Equation Modeling) analysis Smart PLS 3.0 application . As for objects this research , namely owner car in Jabotabek become population this research . Using sampling technique probability sampling so possible each member population own equal chance of being selected become sample (Sugiyono et al., 2019).

According to (Hair et al., 2014) SEM analysis uses provision withdrawal The minimum sample is 5 x the number indicator . Determination this sample like this is used because amount user cars in Jabotabek are not yet known the amount definitely . So that obtained amount sample This research amounted to 5 x 27 indicators namely 135 people.

Questionnaire become tool This research data collection was for 135 people as a sample this research . A 5 Likert scale was used in this study , namely (1=Very Unsuitable , 2=Not Appropriate , 3= Fairly Suitable , 4= Suitable , 5=Very Appropriate).

As for instruments variable loyalty , brand image, products and staff are sourced from research (Kato, 2021) is described in table 1 below :

Table 1. Instruments study

Item	Indicator	Statement
Variable loyalty		
L1	Preference	I will always choose this brand aside brand competitors
L2	Recommendation	I will recommend to others to buy this brand's products

L3	<i>Repurchase</i>	I will buy return this brand product another day
L4	<i>WTP (Want to Pay)</i>	I will pay higher prices for this brand than _ other brands
<i>Variable brand image</i>		
B1	<i>Reliable</i>	I think this brand has good quality
B2	<i>Advanced</i>	I think this brand is modern
B3	<i>Challenging</i>	I think this brand delivers breakthrough latest
B4	<i>Creative</i>	I think this brand is creative
B5	<i>Shopisticated</i>	I agree that this brand is increasingly advanced
B6	<i>Luxury</i>	I agree that this brand is luxury
B7	<i>Sustainable</i>	I agree that this brand is friendly environment
<i>Product variables</i>		
P1	<i>Driving</i>	This brand's products have experience enjoyable drive _
P2	<i>Usability</i>	This brand's products deliver ease of use
P3	<i>Design</i>	This brand's products have attractive design _
P4	<i>Fuel Economy</i>	This brand's products are economical fuel use _
P5	<i>Security</i>	This brand's products deliver security for other users and motorists

P6	Quality	This brand's products deliver best quality
P7	Price	This brand's products deliver competitive price _
P8	Technology	This brand's products deliver features with technology latest
Staff variables		
S1	Convenience communicate	Staff is easy to contact
S2	Response speed	Staff is always ready to respond request customer
S3	Skill	Staff is capable answer question customers well
S4	Empathy	Staff understands need customer
S5	Courtesy	Staff behaved polite to customer
S6	<i>Methodical</i>	Staff delivers information useful and clear
S7	Reliable	Staff delivers service in accordance promises given _
S8	Appearance	Appearing staff neat and professional

After do testing reliability and validity with the help of SPSS 25 , all statements (27 indicators) were obtained has fulfil aspect reliability and validity Because own value above r table namely 0.159. So that instrument suitable for use in this research on 135 respondents owner car in Jabotabek .

As for the depiction of the construct model This research is as follows :

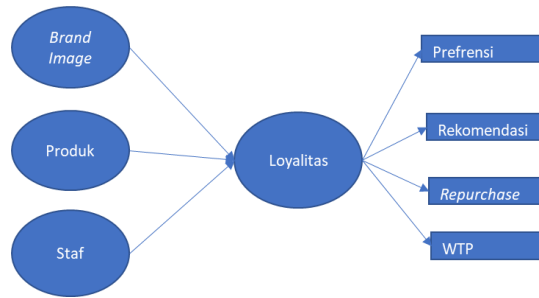


Figure 1. Construct model study

RESULTS AND DISCUSSION

Analysis results description characteristics respondents consisting of types _ gender , age , income per month , frequency drive , brand cars and segments shown in a pie chart the following:

Respondents in this study are 106 cutting tool customers for Kennametal products. Deployment questionnaire is in 7 different industrial areas, namely in Cikarang , Karawang, Bandung, Jakarta, Cilegon , Central Java and Surabaya. Distribution of research instruments form

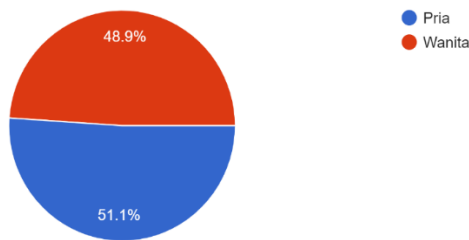


Figure 2. Characteristics type sex

Based on Figure 2 is visible that majority owner car in Jabotabek that is man amounting to 51.1%. Whereas the rest woman namely 48.9%.

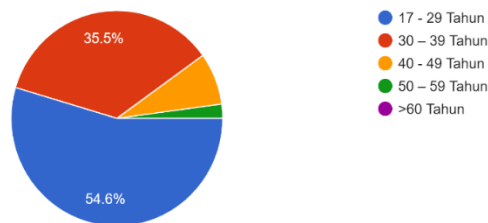


Figure 3. Characteristics age

From the side age dominated by respondents aged between 17 – 29 years amounting to 54.6%.

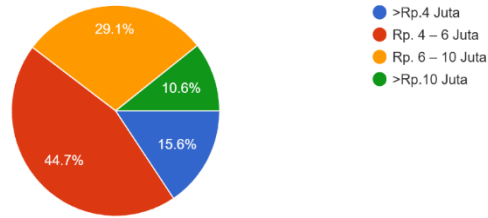


Figure 4. Characteristics income per month

Based on income per month from respondents data obtained that majority income IDR 4 – 6 million amounting to 44.7%. Whereas income the smallest per month portion namely 10.6% is above IDR 10 million / month.

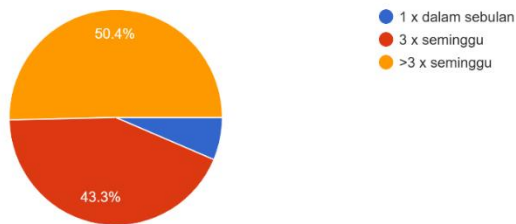


Figure 5. Characteristics frequency drive

Frequency ride more than 3 times a week become the dominant one among respondent that is amounting to 50.4%. Meanwhile those who drive once a month being the smallest portion that is by 2.3%.

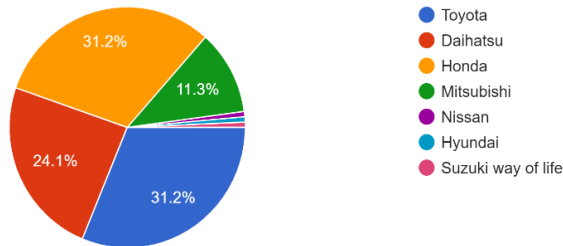


Figure 6. Characteristics brand car

Toyota and Honda car brands became brand largest owned _ respondents that is amounting to 31.2%. Daihatsu became brand the next car dominates with a share of 24.1%.

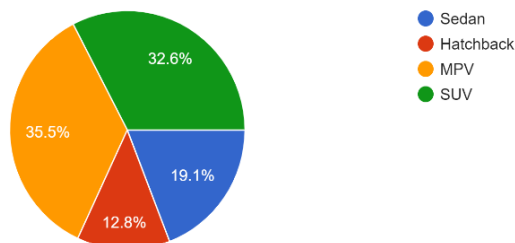


Figure 7. Characteristics segment car

MPV becomes segment car largest owned _ respondents amounting to 35.5%. Then followed SUV segment with a share of 32.6%.

Analysis results verification use assisted Structural Equation Modeling (SEM) analysis Smart PLS application . This SEM analysis is divided into 2 parts namely the outer model and inner model. The measurement model (outer model) is used to see relationship of all indicators with variables latent . Meanwhile, the structural model (inner model) is used to see connection causal between latent or test variable hypothesis research .

The measurement model (outer model) of this research is as follows :

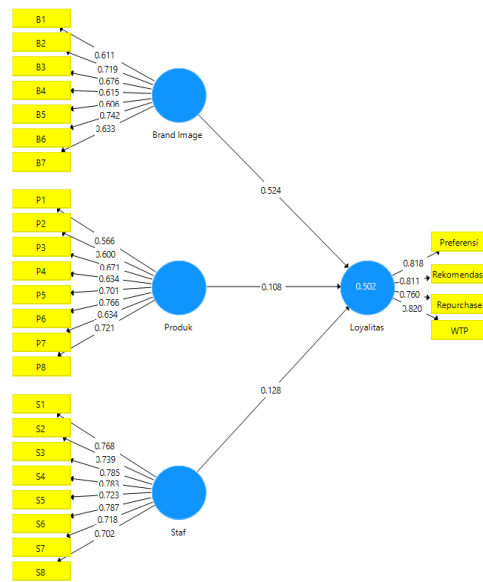


Figure 8. Measurement model (outer model)

Seen in the measurement model that outer loading values for all indicators research above 0.5. Meanwhile, the test results can be stated that measurement model fulfil criteria validity . Whereas mark reliability of all variables own value above 0.7 so stated fulfil criteria model reliability . The model reliability parameters consist of each Cronbach's Alpha and Composite Reliability value variable described in table 2 below :

Table 2. Model reliability parameters

Variable	Cronbach's Alpha	Composite Reliability
Loyalty	0.816	0.879
Brand Image	0.784	0.843
Product	0.818	0.863
Staff	0.890	0.912

Source : SmartPLS Data Analysis (2022)

The structural model (inner model) consists of Goodness of Fit (GoF) parameters. By doing calculation use GoF by applying the fit model, it can be seen is a model already appropriate . Calculation GoF use root square from the mean AVE value and the average result of R-square value . Formula calculation GoF can be seen below (Ghozali & Hengky , 2015).

$$GoF = \sqrt{AVE \times R^2} \text{Eq.1}$$

Table 3. Calculations index *goodness-of-fit*

Variable	AVE	R Square
Loyalty	0.644	0.502
<i>Brand Image</i>	0.435	
Product	0.442	
Staff	0.565	
Average	0.521	0.502

Source : SmartPLS Data Analysis (2022)

It can be concluded , if AVE value and average of The R-square value is entered into the formula equality above , then mark The GoF obtained is as follows :

$$GoF = \sqrt{0,521 \times 0,502} = 0,511$$

After do calculation to GoF , then obtained mark of 0.511 which shows that the empirical data is very in accordance with the research model because it is above 0.36.

Based on Table 3 which has been explained above, shows variable R-Square value loyalty equal to 0.502 meaning variable loyalty can be explained amounting to 50.2% by brand image, product and staff variables in the medium category.

Relevance parameters predictive in a research model own condition where the value $Q^2 > 0$, if mark from $Q^2 < 0$ then the research model declared not to have relevance predictive (Shmueli et al., 2019). In this research , relevance predictive obtained through the blindfolding calculation method where the value from variable dependent produce greater value _ from the rule of thumb , namely $Q^2 > 0$ of 0.305 so that the model in this study has relevance predictive . Then after done bootstrapping The inner model obtained is as follows

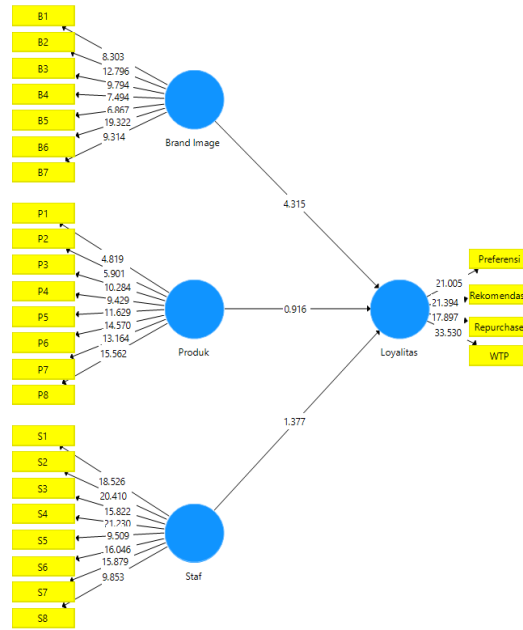


Figure 9. Structural model (inner model)

Next is testing visible hypothesis _ from mark its significance in table 4 below :

Table 4 Test results hypothesis

Hypothesis	Original Sample	T-Statistics	P Value	Analysis Hypothesis
H_1 = There is an influence on <i>brand image</i> loyalty	0.524	4,315	0,000	Accepted
H_2 = There is an influence of the product on loyalty	0.108	0.916	0.360	Rejected
H_3 = There is an influence of staff on loyalty	0.128	1,377	0.169	Rejected

Source : SmartPLS Data Analysis (2022)

Discussion This research focuses on analysis influencing factors _ loyalty in the industry automotive in context owner car in Jabotabek . Based on the analysis results descriptive data obtained that owner car in Jabotabek dominated man aged between 17 – 29 years income IDR 4

– 6 million / month with frequency drive more than 3 times a week . Meanwhile, for brands and segments car dominated Toyota and Honda brands with the MVP segment .

Based on analysis verification obtained that the brand image becomes influencing factors _ in a way significant to loyalty in the industry automotive with a significance of 0.000 and a t value = 4.315 as well big influence amounting to 50.2%. Whereas product and staff factors were proven to have no effect in a way significant to loyalty in the industry automotive Because own mark significantly larger _ from 0.05.

Brand image in context This research is perception consumer related brand car certain ones that last a long time because formed from experience interact with brands that . There are 7 brand image indicators , namely reliable , advanced, challenging, creative, shoplike , luxury, and sustainable (Kato, 2021).

Whereas Loyalty to users cars in industry automotive will deliver on his loyalty to One brand car as well as his willingness to experience give recommendation positive to his relatives about brand car that . According to (Kato, 2021) there are 4 indicators loyalty customer automotive that is preference , recommendation , repurchase and WTP (Want to Pay) in this research are Papers written in left-right aligned format (Justify).

In context research this brand Toyota and Honda cars are considered respondents as the brand that has the best brand image so that it can create respondents are loyal to brand that . If linked to indicators second variable the then it can be explained as follows . Respondent think that brand selected car _ has own quality good (reliable), modern (advanced), providing breakthrough newest (challenging), creative (creative), increasingly sophisticated (shopisticated), luxurious (luxury) and friendly environmental (sustainable).

So assuming _ that represents _ brand image variables are capable make they are loyal or have loyalty to the brand This is shown by the activity of always choosing this brand aside brand competitors (preference), recommend to others to buy this brand product (recommendation), buy return this brand product another day (repurchase), and will pay higher prices for this brand than _ other brands (want to pay).

This finding is in accordance with research (Tamon & Tumewu, 2019) which proves this influence significant positive _ brand image variable towards loyalty customer Toyota car in Manado. Products that have no effect to loyalty in the industry automotives found in this research have also been proven by (Pratama, 2018) that the product has no effect on user loyalty Toyota Yaris car in Surabaya. On the other hand (Practama , 2018) found that brand image is influential significant to loyalty customer . Including users _ car the Nissan brand studied (Pradipta Utama et al., 2021) found positive and significant influence of brand image to loyalty owner car that .

CONCLUSION

Based on data analysis and discussion then it can be concluded that influencing factors _ positive and significant to loyalty in the industry automotive that is big brand image factor influence 50.2%. Whereas the rest influenced by other factors not examined in this study . There are suggestions that can be given to producers car so you can look after it loyalty the consumer that is, by continuing improve brand image such as upgrading aspect reliable product, modern aspect (advanced), provides breakthrough newest (challenging), creative (creative), increasingly sophisticated (shopisticated), luxurious (luxury) and friendly environmental (sustainable).

BIBLIOGRAPHY

- Dan, J. M., Mateus, J., Kato, Y., Hastie, K. M., Yu, E. D., Faliti, C. E., Grifoni, A., Ramirez, S. I., Haupt, S., & Frazier, A. (2021). Immunological memory to SARS-CoV-2 assessed for up to 8 months after infection. *Science*, *371*(6529), eabf4063.
- Hair, J. F., Gabriel, M., & Patel, V. (2014). AMOS covariance-based structural equation modeling (CB-SEM): Guidelines on its application as a marketing research tool. *Brazilian Journal of Marketing*, *13*(2).
- Jørgensen, S., Xu, L., & Costanza, R. (2016). *Handbook of ecological indicators for assessment of ecosystem health*. CRC press.
- Keller, K. L. (2016). Unlocking the power of integrated marketing communications: How integrated is your IMC program? *Journal of Advertising*, *45*(3), 286–301.
- Komalasari, S., Amelia, D., & Asbari, M. (2022). Pancasila as a Legal Development Paradigm. *Journal of Information Systems and Management (JISMA)*, *1*(6), 18–23.
- M. Mabkhot, M., Ferreira, P., Maffei, A., Podrżaj, P., Mądział, M., Antonelli, D., Lanzetta, M., Barata, J., Boffa, E., & Finžgar, M. (2021). Mapping industry 4.0 enabling technologies into united nations sustainability development goals. *Sustainability*, *13*(5), 2560.
- Murgani, R., & Hasibuan, S. (2022). Peningkatan Kualitas Layanan Penyedia Layanan Logistik Berdasarkan Integrasi SERVQUAL dan QFD. *Jurnal Rekayasa Sistem Industri*, *11*(2), 229–242.
- Pratama, R. A. (2018). Media pembelajaran berbasis articulate storyline 2 pada materi menggambar grafik fungsi di SMP Patra Dharma 2 Balikpapan. *Jurnal Dimensi*, *7*(1), 19–35.
- Rachmanto, E. D. R., Putro, S. C., & Pujiyanto, U. (2015). Perbandingan Kemandirian Belajar Teknik Animasi 2D Pada Penerapan Tiga Model Pembelajaran Terhadap Siswa SMK. *Jurnal Pendidikan Sains*, *3*(2), 74–80.
- Raharja, D. P., & Karim, M. F. (2022). Re-territorialization and the governance of ocean frontiers in Indonesia. *Territory, Politics, Governance*, 1–19.
- Schiffman, M., Clifford, G., & Buonaguro, F. M. (2009). Classification of weakly carcinogenic human papillomavirus types: addressing the limits of epidemiology at the borderline. *Infectious Agents and Cancer*, *4*(1), 1–8.
- Sugiyono, S., Sutarman, S., & Rochmadi, T. (2019). Pengembangan sistem computer based test (CBT) tingkat sekolah. *Indonesian Journal of Business Intelligence (IJUBI)*, *2*(1), 1–8.
- Tamon, L. R., & Tumewu, F. J. (2019). Influence of inconvenience and Service Quality on Brand Switching of Service Provider in manado. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *7*(4).
- Tannady, H., Jefriyanto, J., Damanik, S., Widyatmoko, W., Umam, C., Iswahyuningsih, R., & Rasmawati, A. R. (2022). Peran Kemasan Produk dan Harga dalam Meningkatkan Minat Beli Konsumen Produk Teh Dalam Kemasan di Provinsi Jakarta. *Jurnal Kewarganegaraan*, *6*(3), 4678–4690.
- Tarumingkeng, P. J. (2019). Analisis Pengaruh Persepsi Kualitas Terhadap Kepuasan Dan Loyalitas Pelanggan. *JURNAL RISET BISNIS DAN MANAJEMEN*, *7*(4).
- Tjiptono, F., Khan, G., & Yeong, E. S. (2022). Analyzing the Use of Social Media Communication Strategies in Indonesia and Malaysia: Insights and Implications. *Marketing Communications in Emerging Economies, Volume II: Conceptual Issues and Empirical Evidence*, 247–275.

Copyright holder:

Annisa Tri Wahyuni, Triwulandari SD, Rina Fitriana (2023)

First publication rights:

[Syntax Transformation Journal](#)

This article is licensed under:

