

Negara, Danes Jaya; Mantikei, Bambang; Meitiana; Christa, Usup Riassy; Sintani, Lelo

## Article

# Psychological effect of brand image and brand reputation on sustainable firm performance in Indonesian logistics

Contemporary Economics

## Provided in Cooperation with:

University of Finance and Management, Warsaw

*Suggested Citation:* Negara, Danes Jaya; Mantikei, Bambang; Meitiana; Christa, Usup Riassy; Sintani, Lelo (2020) : Psychological effect of brand image and brand reputation on sustainable firm performance in Indonesian logistics, Contemporary Economics, ISSN 2300-8814, University of Finance and Management in Warsaw, Faculty of Management and Finance, Warsaw, Vol. 14, Iss. 4, pp. 428-443,  
<https://doi.org/10.5709/ce.1897-9254.416>

This Version is available at:

<https://hdl.handle.net/10419/297539>

## Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

## Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by/4.0/>

Primary submission: 14.08.2019 | Final acceptance: 10.01.2020

# Psychological Effect of Brand Image and Brand Reputation on Sustainable Firm Performance in Indonesian Logistics

Danes Jaya Negara, Bambang Mantikei, Meitiana, Usup Riassy Christa, and Lelo Sintani

## ABSTRACT

The study examines the relationship between brand image, brand reputation, brand goodwill, and sustainable firm performance (FP). The purpose was to examine the psychological effect of brand image and brand reputation on sustainable FP of Indonesian logistics companies. This was achieved using primary data collected through questionnaires. 500 questionnaires were distributed, and 270 valid responses were used for data analysis, which used Smart PLS for that purpose logistics companies logistics companies. Results of the study highlighted that brand image and brand reputation has significant psychological effect on sustainable FP of logistics companies. Any change in the brand image and brand reputation has significant psychological effect which has contribution to decrease or increase the sustainable FP. Moreover, goodwill also has important role in sustainable FP. Both brand image and brand reputation effect on brand goodwill and finally, brand goodwill influences the sustainable FP.

## KEY WORDS:

Brand image, brand reputation, sustainable firm performance, brand goodwill, psychological effect.

## JEL Classification: D91, L25.

Universitas Palangka Raya

## 1. Introduction

Logistics companies include those companies which play a significant role among the supply chain activities of various industries. In fact, logistics companies are crucial in supporting businesses and helping them perform. These companies are also highly important for the economy, as the smooth operation of various sectors is heavily based on the logistics. Previous studies also mention that logistic has important role in economy (Markarova et al., 2020). Logistics companies are important in providing economic opportunities for people which lead to increase in gross-domestic product (GDP). By examining the positive role of logistics companies, it is possible to conclude that their performance is highly important. Low performance of these companies has a significant negative influence on economy.

However, various logistics companies are facing several issues which contribute to a considerable decrease in performance, which is the case in Indonesia. In this regard, these companies cannot sustain reasonable performance (Dalle et al., 2020). Due to number of factors, logistics companies are facing the issues of sustainable firm performance (FP). Sustainable FP is essential for consistent growth. Sustainable performance is of utmost importance for many companies (Azeem et al., 2020; Shahab et al., 2020). There are a number of factors affecting sustainable FP in logistics companies. However, the current study considers three major factors; brand image, brand reputation and brand goodwill.

Indonesian logistics is one of the most important sectors in Indonesia (Soma, Kubota, & Mizuno, 2019) and its sustainable performance is most key for the country to run the other businesses. This sector of Indonesia is also struggling due to various issues related to the sustainable performance. Therefore, this study

Correspondence concerning this article should be addressed to: **Danese Jaya Negara**, Universitas Palangka Raya, Kota Palangka Raya, Kalimantan Tengah 74874, Indonesia, E-mail: [danesejaya.djn297@gmail.com](mailto:danesejaya.djn297@gmail.com)

examined the sustainable performance in respect to different factors which effect on sustainable FP. Indonesian logistics companies ranking is given in Figure 1 which shows that the performance of Indonesian logistic is low as compared to the other countries. Logistic department of Indonesia ranks 53 among various countries. The low performance is caused by the issues in sustainable FP.

In this direction, the current study proposes that brand image and brand reputation have psychological effect on logistics companies. Number of studies examined brand image and brand reputation (Iglesias et al., 2019; Kim et al., 2018; Martínez-Ferrero & García-Sánchez, 2018). However, literature concerning the psychological role of brand image and brand reputation is lacking. Therefore, the current study fills this gap by examining the psychological effect of brand image and brand reputation on sustainable FP. Along with this, number of scholars considered logistic performance (Endrawati & Siregar, 2018; Hameed et al., 2018; Sriyakul et al., 2019), however, sustainable performance in respect to the psychological effect of brand image and brand reputation is not considered in Indonesian logistics companies.

Along with the psychological effect of brand image and brand reputation, brand goodwill also has effect on sustainable FP. Any change in goodwill has direct effect on sustainable FP of logistics companies. In this regard, this study examined the relationship between brand image, brand reputation, brand goodwill and sustainable FP. Hence, the purpose of this study is to examine the psychological effect of brand image and brand reputation on sustainable FP of Indonesian logistics companies. It has both practical as well as theoretical implications both for logistics companies and literature.

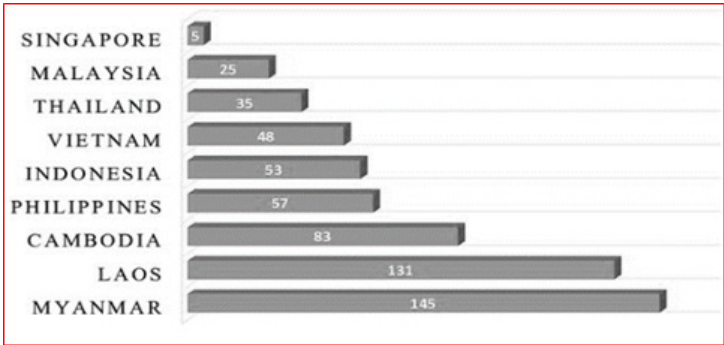
## 2. Literature Review

Firm performance comprises of organizational performance, functioning of the firm and outcomes of its operations, and greatly contributes to firm activities. Survival of the company is of utmost importance. Hence, FP is crucial. (Tumasjan, Kunze, Bruch, & Welp, 2020). Those firms which can sustain their performance generally survive in the market. Sustainable FP eventually leads to a higher performance. Sustainability is the capability of a

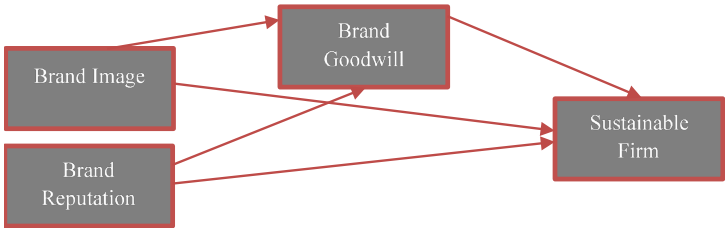
structure to exist continually at a cost, in a universe that grows towards equilibrium. In the context of business, sustainability is the state of continuous performance by a specific company in same circumstances with same cost (Hastuti et al., 2017). In today's environment, sustainability is one of the major concerns among organizations. Decrease in sustainable performance has a negative effect on business, however, increase in sustainability has a positive effect on business. The current study is also dealing with sustainable FP among logistics companies of Indonesia. In the context of logistics companies, sustainable FP denotes to the sustainable quality of services for the logistics companies. It has the ability to help companies in competitive environments. As it is evident from literature, FP has crucial role in competitive environment (Rhee & Stephens, 2020). There are number of factors which effect on FP of logistics companies. Generally, brand image and brand reputation have important role in developing and increasing FP. Both brand image and brand reputation play an important role in improving the odds of survival in a competitive environment by increasing the FP. Brand image and brand reputation has positive effect on company goodwill. Better brand image and brand reputation increase the company's goodwill which has significant potential to improve the FP. Figure 2 highlights the relationship between brand image, brand reputation, brand goodwill and sustainable FP.

### 2.1. Brand Image and Sustainable FP

Brand image can be described as a set of features customers connect to particular products. Brand image has a significant effect on sustainable. Most of the studies examined the direct effect of brand image on FP (Adwiyah et al., 2020), however, none of the study examined the psychological role of brand image on sustainable FP. Good brand image plays a psychological role. Good brand creates an image in the minds of consumers which leads to purchase intention. Psychological role has a significant potential to enhance sustainable FB. Better brand image forces the customers to purchase the product, however, weaker brand image has potential to develop the customer intention towards specific product. Therefore, this study examined the effect of



**Figure 1.** Asian countries logistic ranking.  
Source: Doktoralina and Apollo (2019)



**Figure 2.** Theoretical framework of the study showing the relationship between brand image, brand reputation, brand goodwill and sustainable FP.

brand image created through psychological effect on sustainable FP. Previous studies highlighted that brand image has positive influence on FP (Iglesias et al., 2019; Sultan & Wong, 2019), however, these studies did not discuss the sustainable FP. In this direction, this study examined the psychological effect of brand image on sustainable BP.

Hypothesis 1. Brand image has positive influence on sustainable FP.

## 2.2. Brand Reputation and Sustainable FP

Brand reputation refers to how a specific brand (for individual or company) is perceived by others. Satisfactory brand reputation manifests itself when customers trust the company's products and services, and feel good about purchasing them. Various studies carried out in the field of brand reputation (Fiaz et al., 2019) examined the impact of brand image in company in respect to the sale of product and services, success of brand and performance of the company. However, the current study is unique and examines the psychological effect of brand image on the minds of customers, which can decrease or increase the FP. Along with this, number of studies carried out to examine the influence of brand reputation on FP (Turner & Adiguzel, 2017), however, sustainable FP is not examined by the previous studies. It is important to consider because literature regarding the relationship between psychological effect of brand reputation on sustainable FP is lacking. Literature highlighted a significant positive effect of reputation on performance (Na'ami & Gholampoor, 2017) which lead to the below hypothesis;

Hypothesis 2. Brand reputation has a positive influence on sustainable FP.

## 2.3. Brand Image and Brand Goodwill

Goodwill is an intangible asset that is associated with the purchase of one company by another. Goodwill signifies assets that are not distinctly identifiable. Goodwill is somewhat similar to reputation. A good reputation of any company or brand also means a clear goodwill, which creates customer interest in their products. According to the literature, goodwill has important role in businesses (Murray & Vogel, 1997; Souza & Borba, 2017). There is a relationship between brand image and goodwill. In change in

the brand image has the potential to increase or decrease the goodwill of the brand. Brand image has psychologically effect on customers which lead to the goodwill of the brand. This is the first study which examines goodwill regarding the psychological effect of brand image. In this respect, the current study is a significant contribution to subject literature. The relationship between psychological effect of brand image and goodwill has importance influence on customer which lead to the performance. It also has the potential to satisfy the customer and customer satisfaction is key to the success of a business (Nadeem et al., 2018).

Hypothesis 3. Brand image has positive influence on brand goodwill.

## 2.4. Brand Reputation and Brand Goodwill

Along with the positive effect of brand image on brand goodwill, brand reputation also has effect on brand goodwill. Increase in the brand reputation has significant impact to change the level of brand goodwill. With regards to the relationship of brand reputation and brand goodwill, the literature is lacking. Especially, this relationship is not examined by previous studies in logistics companies. The element of brand reputation is already examined in logistics companies (Świtała et al., 2018), moreover the element of goodwill is also examined in supply chain or logistics companies (Emerson, et al., 2009), however, the combine relationship of brand reputation is not examined with brand goodwill. Therefore, this is the unique study which examined the effect of brand reputation on brand goodwill. Brand image plays a significant role in creating positive brand goodwill. Especially, it is important because this study examining the psychological effect of brand reputation on brand goodwill.

Hypothesis 4. Brand reputation has a positive influence on brand goodwill.

## 2.5. Brand Goodwill and Sustainable FP

Firm's profitability generally depends on the FP, better FP lead to the better firm profitability. Therefore, it is always the major concern of companies to enhance the overall FP. The ultimate objective of the companies is to increase profit and maximize the wealth of shareholders, in this regard FP has central role to

play. Increase in the profitability has significant role to increase shareholders wealth (Dwomoh et al., 2017). The case is similar in logistics companies in which performance is key to the profitability. However, for this whole mechanism, the sustainable performance is required. Fluctuation in performance is not lead to the success, that is the reason, logistics companies required sustainable performance which is considered in this study. Studies also highlighted that that sustainable performance is most important (Ahmed et al., 2020; Lu et al., 2018). This study examined the relationship between brand goodwill and sustainable FP. This is a unique relationship which is not examined in previous studies. Especially, in case of logistics companies this relationship is very rare. Hence, it is leading to the below hypothesis;

Hypothesis 5. Brand goodwill has positive influence on sustainable FP.

### 2.6. Mediating Role of Brand Goodwill

Along with the other discussion, this study also discusses the mediating role of brand goodwill. The mediating role of brand goodwill is discussed between brand image and sustainable FP. Moreover, the mediating role of brand goodwill is also discussed between brand reputation and sustainable FP. For mediation effect, this study followed Baron and Kenny (1986) approach. Above discussion highlighted that brand image and brand reputation has a significant relationship with brand goodwill and brand sustainable FP. Brand goodwill also has a significant relationship with sustainable FP. Hence, these relationships justify the mediating role of brand goodwill which lead to the below hypotheses;

Hypothesis 6. Brand goodwill mediates the relationship between brand image and sustainable FP.

Hypothesis 7. Brand goodwill mediates the relationship between brand reputation and sustainable FP.

## 3. Research Methodology

Research methodology is an important part of all research studies (Scandura & Williams, 2000) because it has major role in research. As this study examined the relationship between brand image, brand reputation, brand goodwill and sustainable FP, in this direction, the current study followed quantitative research

approach along with the cross-sectional research design. It is very important to highlight because there is numerous research design to examine the relationship among variables, therefore, appropriate research design is most important to select for better results.

The study was based on Indonesian logistics companies and their employees. These companies were selected due to their issues with sustainable performance. The employees were chosen as the respondents, as they are more knowledgeable about the performance of the company than, for instance, customers (Dalle & Hastuti, 2017). Sustainable performance was measured in respect to the last three years. The study examined whether the performance was sustainable, or a variation occurred.

Therefore, a questionnaire survey was carried out among the Indonesian logistics companies. 500 questionnaires were distributed, and 270 valid responses were used for data analysis. Cluster sampling is an appropriate technique to collect the data in a wide spread population (Altaf et al., 2019), hence, cluster sampling was used for data collection. Moreover, data was collected by using the email survey. Questionnaires were sent via e-mail. The addresses of the employees were obtained by contacting the logistics companies. Reminders were also sent to those who failed to respond to the survey.

## 4. Data Analysis and Findings

Missing value has the tendency to change the original results. Along with the missing value, outlier in the data, it also has the tendency to alter the results. Therefore, it is very important to check the both. In case of any missing value and outlier, it must be fixed before further analysis. In this direction, the current study also make assessment for missing value and outlier which is given in Table 1. No missing value and outlier were indicated in the current data.

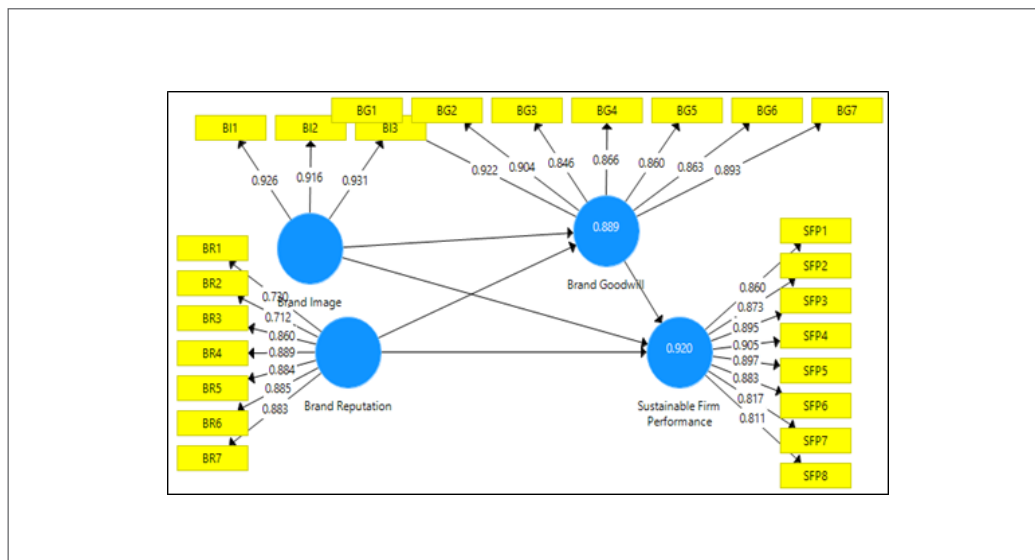
After the analysis of data for missing value and outlier, this study examined the measurement model for factor loadings, composite reliability (CR) and average variance extracted (AVE). Factor loadings, alpha, CR and AVE must be above 0.7, 0.7, 0.7 and 0.5, respectively (Hair, Hollingsworth, Randolph, & Chong, 2017). Discriminant validity is confirmed with help of cross-loadings as given in Table 3. Table 2 shows CR and AVE which is above

Table 2. Heterotrait Monotrait Ratio

	No.	Missing	Mean	Median	Min	Max	SD	Kurtosis	Skewness
BI1	1	0	3.638	3	1	7	1.948	-0.86	0.321
BI2	2	0	3.506	3	1	7	1.867	-0.64	0.423
BI3	3	0	3.538	4	1	7	2.006	-1.057	0.231
BR1	4	0	3.525	3	1	7	1.861	-0.763	0.298
BR2	5	0	3.737	4	1	7	1.73	-0.554	0.258
BR3	6	0	3	3	1	7	1.5	-0.122	0.628
BR4	7	0	3.1	3	1	7	1.501	0.626	1.004
BR5	8	0	3.2	3	1	7	1.457	0.907	1.018
BR6	9	0	3.075	3	1	7	1.551	0.446	0.867
BR7	10	0	3.038	3	1	7	1.462	0.678	0.82
BG1	11	0	3.112	3	1	7	1.624	0.282	0.806
BG2	12	0	3.119	3	1	7	1.551	0.554	0.886
BG3	13	0	2.944	3	1	7	1.472	-0.043	0.561
BG4	14	0	3.131	3	1	7	1.432	0.653	0.785
BG5	15	0	3.025	3	1	7	1.508	0.437	0.807
BG6	16	0	3.038	3	1	7	1.557	0.292	0.78
BG7	17	0	3.144	3	1	7	1.524	-0.212	0.631
SFP1	18	0	3.031	3	1	7	1.447	0.274	0.645
SFP2	19	0	2.956	3	1	7	1.429	-0.164	0.584
SFP3	20	0	3.119	3	1	7	1.411	0.206	0.689
SFP4	21	0	3.106	3	1	7	1.511	-0.118	0.707

**Table 2.** Heterotrait Monotrait Ratio (Continued)

	No.	Missing	Mean	Median	Min	Max	SD	Kurtosis	Skewness
SFP5	22	0	3.1	3	1	7	1.513	0.041	0.703
SFP6	23	0	3.081	3	1	7	1.414	0.144	0.685
SFP7	24	0	3.175	3	1	7	1.759	-0.701	0.349
SFP8	25	0	3.219	3	1	7	1.916	-0.843	0.454

**Figure 3.** Measurement model.

0.7 and 0.5, respectively. Moreover, factor loading is given in Figure 3 and appendix (Table 1).

Along the measurement model, structural was used to test the hypothesis (Dahri et al., 2019; Hamid et al., 2019). The effect of brand image, brand reputation and goodwill were examined on sustainable FP. Moreover, effect of brand image and brand reputation was examined on goodwill. All these five hypotheses were based on the direct effect of variables. All the direct effect is supported as the t-value is above 1.96 which is shown in Table 4 and Figure 4.

Indirect effect of the study is given in Table 5. Results of the study shows that brand image and brand

reputation have significant relationship with brand goodwill and brand sustainable FP. Brand goodwill also has significant relationship with sustainable FP. In this significant relationship, the brand goodwill also playing a mediating role. Finally, the mediation effect of brand goodwill is given in Figure 5 and Figure 6.

## 5. Conclusion

This study examined the relationship between brand image, brand reputation, brand goodwill and sustainable firm performance (FP). Population of the study was Indonesian logistics companies. After conducting a research survey, this study highlighted that brand



Table 2. Cronbach Alpha, CR and AVE

	Alpha	rho_A	CR	AVE
Brand Goodwill	0.951	0.952	0.96	0.774
Brand Image	0.915	0.919	0.946	0.854
Brand Reputation	0.929	0.941	0.943	0.702
Sustainable Firm Performance	0.953	0.954	0.961	0.754

Table 3. Cross-loadings

	Brand Goodwill	Brand Image	Brand Reputation	Sustainable Firm Performance
BG1	0.922	0.559	0.873	0.854
BG2	0.904	0.558	0.882	0.872
BG3	0.846	0.508	0.815	0.792
BG4	0.866	0.509	0.808	0.836
BG5	0.86	0.467	0.755	0.816
BG6	0.863	0.539	0.81	0.818
BG7	0.893	0.442	0.821	0.873
BI1	0.525	0.926	0.622	0.546
BI2	0.496	0.916	0.62	0.538
BI3	0.587	0.931	0.695	0.595
BR1	0.584	0.825	0.83	0.589
BR2	0.566	0.798	0.812	0.596
BR3	0.822	0.512	0.86	0.836
BR4	0.849	0.552	0.889	0.84

**Table 3.** Cross-loadings (Continued)

	Brand Goodwill	Brand Image	Brand Reputation	Sustainable Firm Performance
BR5	0.858	0.503	0.884	0.848
BR6	0.874	0.506	0.885	0.85
BR7	0.86	0.587	0.883	0.842
SFP1	0.825	0.48	0.805	0.86
SFP2	0.836	0.492	0.812	0.873
SFP3	0.837	0.569	0.84	0.895
SFP4	0.842	0.527	0.837	0.905
SFP5	0.87	0.558	0.862	0.897
SFP6	0.853	0.508	0.819	0.883
SFP7	0.794	0.496	0.753	0.817
SFP8	0.751	0.592	0.739	0.811

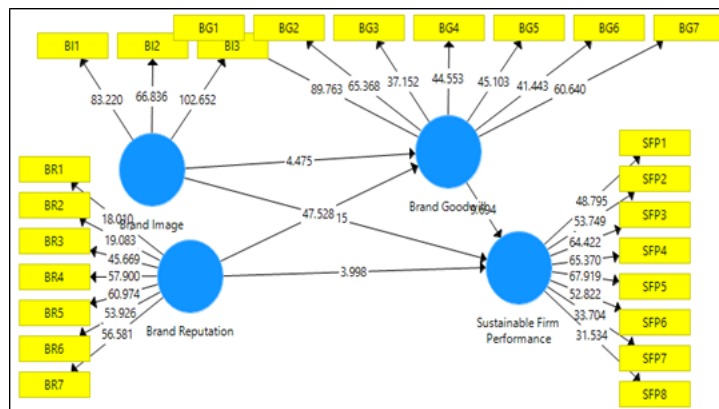
**Figure 4.** Structural model.

Table 4. Direct Effect

	(O)	(M)	SD	T Statis- tics	P Val- ues
Brand Goodwill -> Sustainable Firm Performance	0.647	0.651	0.067	9.694	0
Brand Image -> Brand Goodwill	0.145	0.14	0.032	4.475	0
Brand Image -> Sustainable Firm Performance	0.024	0.002	0.011	2.115	0.043
Brand Reputation -> Brand Goodwill	1.039	1.036	0.022	47.528	0
Brand Reputation -> Sustainable Firm Performance	0.324	0.32	0.081	3.998	0

Table 5. Indirect Effect

	(O)	(M)	SD	T Statis- tics	P Val- ues
Brand Image -> Brand Goodwill -> Sustainable Firm Performance	-0.094	-0.091	0.021	4.443	0
Brand Reputation -> Brand Goodwill -> Sustainable Firm Performance	0.672	0.674	0.069	9.679	0

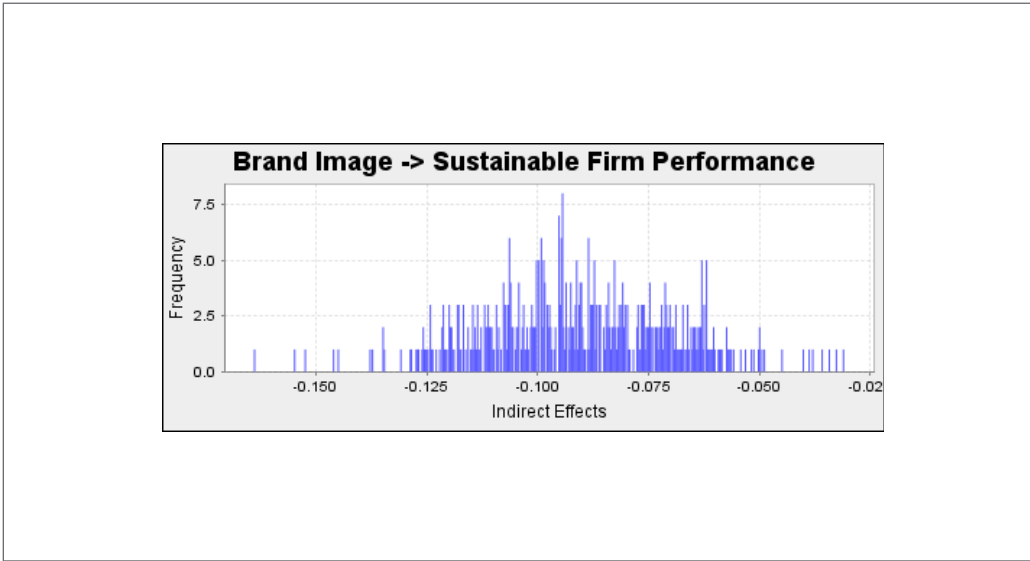
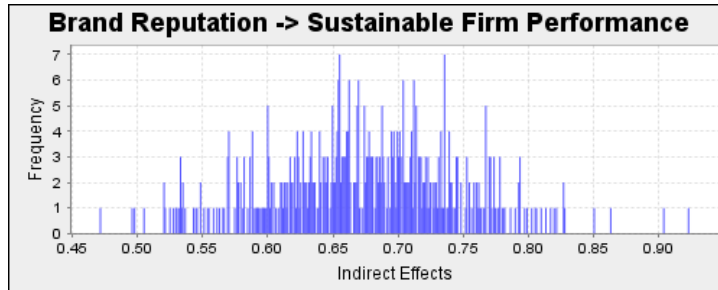


Figure 5. Indirect effect between Brand Image and Sustainable FP.



**Figure 6.** Indirect effect between Brand Reputation and Sustainable FP.

image and brand reputation has significant psychological effect on sustainable FP of logistics companies. Any change in the psychological effect of brand image and brand reputation has direct and indirect effect on sustainable FP. With the direct effect of brand image and brand reputation on the sustainable FP, it also has indirect effect through brand goodwill. Brand goodwill transfer the positive effect of brand image and brand reputation on sustainable FP. Any change in the brand image and brand reputation's psychological effect has significant contribution to decrease or increase the sustainable FP. Therefore, logistics companies should enhance the brand image and brand reputation. Moreover, goodwill also has important role in sustainable FP. Both brand image and brand reputation effect on brand goodwill and finally, brand goodwill influences the sustainable FP.

### 5.1 Implications of the Study

This study examined the relationship between brand image, brand reputation, brand goodwill and sustainable firm performance (FP). This is most valuable relationship, which is examined in the logistics companies, particularly, the Indonesian logistics companies. This relationship is clear contribution to the literature because psychological effect of brand image and brand reputa-

tion is not examined by the literature. Especially, this relationship is not examined with sustainable FP among Indonesian logistics companies. In the filed of practical contribution, again this study is vital for the logistics companies. As the logistics companies of Indonesia are facing the problem of sustainable FP, in this regard, this study suggested the companies should promote the psychological effect of brand image and brand reputation along with brand goodwill to enhance sustainable FP.

## 6. Limitations and Future Directions

Limitations of all research leads to valuable future directions. Therefore, the limitations of this study may prove helpful in future research on logistics companies. First, this study is based on the logistics companies and results of this study cannot apply to other companies, as this study addressed the unique issues of sustainable FP only among logistics companies. Therefore, future studies should be separated to various other companies in relation to the psychological effect of brand image and brand reputation. Moreover, this study is limited to the developing country, future study should be also carried out in developed countries. In addition to this, now the companies are moving towards electronic logistics. Therefore, future research should also cover electronic logistics.

## References

- Adwiyah, R., Cintyawati, C., Firmansyah, F., Mustikawati, F., Fatimah, S., & Islami, V. (2020, March). Boosting the performance of convection creative industry through supply chain management and brand image enhancement. In A. Rachmatie, D. M. Sodik, D. Ahmadi, I. J. Triwardhani, A. Satriani, R. Adwiyah, Alhamuddin, A. F. Sebayang (Eds.) *2nd Social and Humaniora Research Symposium (SoRes 2019)* (pp. 608-612). Atlantis Press. <https://doi.org/10.2991/assehr.k.200225.132>
- Ahmed, W., Ashraf, M. S., Khan, S. A., Kusi-Sarpong, S., Arhin, F. K., Kusi-Sarpong, H., & Najmi, A. (2020). Analyzing the impact of environmental collaboration among supply chain stakeholders on a firm's sustainable performance. *Operations Management Research*, 1-18. <https://doi.org/10.1007/s12063-020-00152-1>
- Altaf, M., Hameed, W., Nadeem, S., & Arfan, S. (2019). Successful entrepreneurial process as contributor towards business performance in banking: moderating role of passion for inventing. *South Asian Journal of Management Sciences*, 13(1). <https://doi.org/10.21621/sajms.2019131.02>
- Azeem, M., Mataruna-Dos-Santos, L. J., & Abdallah, R. B. (2020). Proposing revised KHDA model of school improvement: Identification of factors for sustainable performance of Dubai private schools. In A. N. Al-Masri, Y. Al-Assaf (Eds.) *Sustainable development and social responsibility—Volume 2* (pp. 173-202). Springer. <https://doi.org/10.1007/978-3-030-32902-0>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173-1182. <https://doi.org/10.1037//0022-3514.51.6.1173>
- Dahri, A. S., Hameed, W. U., Nawaz, M., Sami, A., & Bux Shah, S. K. (2019). Nurses' job satisfaction is burned out by their leaders and stress. *Journal of Managerial Sciences*, 13(2). <https://doi.org/>
- Dalle, J., Hairudinor, Baharuddin, Sriadhi, & Chandra, T. (2020). Does it unrest alter the effect of risk-taking attitude on the organization's performance? *Journal of Security and Sustainability Issues*, 9(5), 158–172. [https://doi.org/10.9770/jssi.2020.9.M\(13\)](https://doi.org/10.9770/jssi.2020.9.M(13))
- Dalle, J., & Hastuti, D. (2017). Prototype decision support system selecting employee for certain position using profile matching. *Journal of Engineering and Applied Sciences*, 12(2), 183–185. <https://doi.org/10.3923/jeasci.2017.171.175>
- Doktoralina, C., & Apollo, A. (2019). The contribution of strategic management accounting in supply chain outcomes and logistic firm profitability. *Uncertain Supply Chain Management*, 7(2), 145–156. <https://doi.org/10.5267/j.uscm.2018.10.010>
- Dwomoh, G., Boachie, W. K., & Kwarteng, K. (2017). the relationship between organizations'acquired knowledge, skills, abilities (SKAs) and shareholders wealth maximization: The mediating role of training investment. *International Journal of Information, Business and Management*, 9(1), 149. <https://doi.org/10.11648/j.jim.20150405.15>
- Emerson, D., Zhou, W., & Piramuthu, S. (2009). Goodwill, inventory penalty, and adaptive supply chain management. *European Journal of Operational Research*, 199(1), 130–138. <https://doi.org/10.1016/j.ejor.2008.11.007>
- Endrawati, T., & Siregar, M. T. (2018, March). Analysis of logistic distribution performance of good supply from PT. Mentari Trans Nusantara distribution center to branches using Smart PLS 3.0. In A. Kusumastuti, D. Hartanto, H. Prasetiawan, & S. Nurmasitah (Eds.) *AIP Conference Proceedings* (Vol. 1941, No. 1, p. 020007). AIP Publishing LLC. <https://doi.org/10.1063/1.5028065>
- Fiaz, M., Ikram, A., Basma, A., Tariq, Z., Jafri, S. K. A., & Khurram, W. (2019, November). Role of social media marketing activities in creating university brand image and reputation: the mediating role of customer value co-creation behavior. In T. Mahmood, S. Khoja, & S. Ghani (Eds.) *2019 8th International Conference on Information and Communication Technologies (ICICT)* (pp. 135-141). IEEE. <https://doi.org/10.1109/ICICT47744.2019.9001927>
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*, 117(3), 442-458.
- Hameed, U., Shabbir, M., Raza, A., & Salman, A. (2018). Remedies of low performance among Pakistani e-logistics companies: The role of firm's IT capability and information communication technology (ICT). *Uncertain Supply Chain Management*, 7(2). <https://doi.org/10.5267/j.uscm.2018.6.002>
- Hamid, S. N. A., Shahid, M. N., Hameed, W. U., Amin,

- M., & Mehmood, S. (2019). Antecedents of job stress and its impact on nurse's job satisfaction and turnover intention in public and private hospitals of Punjab Pakistan. *International Journal of Scientific & Technology Research*, 8(10), 129-137.
- Hastuti, D., Dalle, J., & Khatimi, H. (2016, October). An empirical evaluation of ERP values using RBV approach in Indonesia. In A. Pranolo, Y. Hendriana, A. Prahara, A. Azhari, G. Ariyanto, L. S. Riza, Ramadiani, A. Septiarini, Hamdani, M. Syafrullah, I. Riyanto, K. Adiyarta, Y. Wihardi, I. T. R. Yanto, A. P. Wibawa, O. Wicaksono, P. Harsa Wara., N. Dengen (Eds.) *2016 2nd International Conference on Science in Information Technology (ICSITech)* (pp. 26-29). IEEE. <https://doi.org/10.1109/ICSITech.2016.7852602>
- Iglesias, O., Markovic, S., Singh, J. J., & Sierra, V. (2019). Do customer perceptions of corporate services brand ethicality improve brand equity? Considering the roles of brand heritage, brand image, and recognition benefits. *Journal of business ethics*, 154(2), 441-459. <https://doi.org/10.1007/s10551-017-3455-0>
- Kim, S. S., Choe, J. Y. J., & Petrick, J. F. (2018). The effect of celebrity on brand awareness, perceived quality, brand image, brand loyalty, and destination attachment to a literary festival. *Journal of destination marketing & management*, 9, 320-329. <https://doi.org/10.1016/j.jdmm.2018.03.006>
- Lu, M.-T., Hsu, C.-C., Liou, J. J., & Lo, H.-W. (2018). A hybrid MCDM and sustainability-balanced scorecard model to establish sustainable performance evaluation for international airports. *Journal of Air Transport Management*, 71, 9-19. <https://doi.org/10.1016/j.jairtraman.2018.05.008>
- Makarova, I., Shubenkova, K., Mavrin, V., Mukhametdinov, E., Boyko, A., Almetova, Z., & Shepelev, V. (2020). Features of logistic terminal complexes functioning in the transition to the circular economy and digitalization. In A. Skłodowski (Ed.) *Modelling of the interaction of the different vehicles and various transport modes* (pp. 415-527). Springer. [https://doi.org/10.1007/978-3-030-11512-8\\_10](https://doi.org/10.1007/978-3-030-11512-8_10)
- Martínez-Ferrero, J., & García-Sánchez, I.-M. (2018). The level of sustainability assurance: The effects of brand reputation and industry specialisation of assurance providers. *Journal of business ethics*, 150(4), 971-990.
- Murray, K. B., & Vogel, C. M. (1997). Using a hierarchy-of-effects approach to gauge the effectiveness of corporate social responsibility to generate goodwill toward the firm: Financial versus nonfinancial impacts. *Journal of Business Research*, 38(2), 141-159. [https://doi.org/10.1016/S0148-2963\(96\)00061-6](https://doi.org/10.1016/S0148-2963(96)00061-6)
- Na'ami, A., & Gholampoor, A. (2017). Investigating factor structure of social responsibility, customer satisfaction, organizational reputation and performance in enterprises (case study: Bank Shahr). *Journal of Urban Economics and Management*, 5(17), 1-12.
- Nadeem, S., Alvi, A. K., & Iqbal, J. (2018). Performance indicators of e-logistic system with mediating role of information and communication technology (ICT). *Journal of Applied Economics & Business Research*, 8(4), 217-228.
- Rhee, M., & Stephens, A. R. (2020). Innovation-orientated technology assimilation strategy and korean smes enhancing innovation capability, competitive advantage and firm performance. *International Journal of Innovation Management*, 24(6), 1-27. <https://doi.org/10.1142/S1363919620500814>
- Scandura, T. A., & Williams, E. A. (2000). Research methodology in management: Current practices, trends, and implications for future research. *Academy of Management Journal*, 43(6), 1248-1264. <https://doi.org/10.5465/1556348>
- Shahab, Y., Ntim, C. G., Chen, Y., Ullah, F., Li, H. X., & Ye, Z. (2020). Chief executive officer attributes, sustainable performance, environmental performance, and environmental reporting: New insights from upper echelons perspective. *Business Strategy and the Environment* 29(1), 1-16. <https://doi.org/10.1002/bse.2345>
- Soma, A. S., Kubota, T., & Mizuno, H. (2019). Optimization of causative factors using logistic regression and artificial neural network models for landslide susceptibility assessment in Ujung Loe Watershed, South Sulawesi Indonesia. *Journal of Mountain Science*, 16(2), 383-401. <https://doi.org/10.1007/s11629-018-4884-7>
- Souza, M. M. d., & Borba, J. A. (2017). Value relevance vis-a-vis disclosure on business combinations and goodwill recognized by publicly traded Brazilian companies. *Revista Contabilidade & Finanças*, 28(73), 77-92. <https://doi.org/10.1590/1808-057x201703240>
- Sriyukul, T., Umam, R., & Jermisittiparsert, K. (2019). Total quality management and logistic performance: moderating role of reserve supply chain in pharmaceutical industry of Indonesia. *International Journal of Innovation, Creativity and Change*, 5(2), 228-248.

- Sultan, P., & Wong, H. Y. (2019). How service quality affects university brand performance, university brand image and behavioural intention: The mediating effects of satisfaction and trust and moderating roles of gender and study mode. *Journal of Brand Management*, 26(3), 332-347. <https://doi.org/10.1057/s41262-018-0131-3>
- Świtała, M., Gamrot, W., Reformat, B., & Bilińska-Reformat, K. (2018). The influence of brand awareness and brand image on brand equity—an empirical study of logistics service providers. *Journal of Economics & Management*, 33, 96-119.
- Tumasjan, A., Kunze, F., Bruch, H., & Welp, I. M. (2020). Linking employer branding orientation and firm performance: Testing a dual mediation route of recruitment efficiency and positive affective climate. *Human Resource Management*, 59(1), 83-99. <https://doi.org/10.1002/hrm.21980>
- Turner, K., & Adiguzel, F. (2017). *The effects of CEO narcissism and corporate brand reputation on firm performance*. In D. Vrontis, Y. Weber, & E. Tsoukatos (Eds.) *10th annual conference of the euromed academy of business* (pp. 2305-2306). EuroMed Press.

# Appendix

Table 1. Factor Loadings

	Brand Goodwill	Brand Image	Brand Reputation	Sustainable Firm Performance
BG1	0.922			
BG2	0.904			
BG3	0.846			
BG4	0.866			
BG5	0.86			
BG6	0.863			
BG7	0.893			
BI1		0.926		
BI2		0.916		
BI3		0.931		
BR1			0.73	
BR2			0.712	
BR3			0.86	
BR4			0.889	
BR5			0.884	
BR6			0.885	
BR7			0.883	
SFP1				0.86
SFP2				0.873
SFP3				0.895



Table 1. Factor Loadings (Continued)

	Brand Goodwill	Brand Image	Brand Reputation	Sustainable Firm Performance
SFP4				0.905
SFP5				0.897
SFP6				0.883
SFP7				0.817
SFP8				0.811