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Green Procurement Analysis Factors on the Procurement of Alternative Plastic Bag Substitutes in Modern Retail: An Initial Study

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Abstract- — *Plastic bags are containers that are often used by many customers in modern retail because they can accommodate heavy, hygienic, and waterproof goods. However, this plastic bag is an item tha t can pollute the environment because according to research this plastic bag is difficult to decompose because it is made from raw materials for petroleum products. According to research, this plastic bag is most found in modern retail because it is widely used by modern retail customers as a grocery transport bag. Therefore, alternative steps are needed to replace these plastic bags by procuring alternative bags from plastic bags using the Green Procurement concept. This research uses survey results on modern retail in Bandung City using the SEM PLS method. From the survey of factors that affect Green Procurement against plastic bag substitutes, it was found that Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT), Transformational Leadership (TFL), Innovation Capability (IC), and Transactional Leadership (TSL) affect Green Procurement (GP) in modern retail in Bandung City.*

Keywords— Alternative Plastic Bags, Green Procurement, Retail Modern

INTRODUCTION

Plastic bags are a container or place that is useful as a grocery bag, a bag carrying various kinds of goods, usually wide and long with various advantages such as being able to carry very heavy items, hygienic, waterproof, useful for various applications, and very affordable (Gómez & Escobar, 2022). This plastic bag was discovered accidentally, this plastic bag is made of synthetic thin and flexible film that is difficult to decompose because it is made of petroleum raw materials called polyethylene. Polyethylene raw material for making plastic bags was accidentally discovered in 1933 in England precisely at a chemical plant in the Northwich area. This plastic bag was introduced in general in the early 1970s throughout the world to Indonesia which made plastic bags that until now increasingly popular among consumers and retailers. After this plastic bag began to be introduced to Indonesia, the production of this plastic office became so massive that it became

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a tool used to carry all kinds of goods because of its lightweight, portable, simple, cheap, and lightweight nature (Suryadi & Abdurahman, 2022).

But who would have thought, the plastic bags that we use to carry our groceries, especially in modern retail, cause environmental problems starting from the process of procuring raw materials to the disposal process (Iheukwumere et al., 2019). Plastic bags have become an environmental problem because they have caused plastic pollution for a long time in recent years. In 2015 alone, the total amount of plastic waste has reached 60-99 million metric tons globally with developing countries such as Indonesia, as the largest contributor (Permana et al., 2020). This is also not surprising, because with the number of Indonesian populations which occupies the fourth position in the world (around 273 million people) after China, India, and the United States, resulting in many global plastic bag waste contributors coming from Indonesia. These wastes are abandoned in landfills while approximately fifteen percent are plastic waste and plastic bags without any recycling system or recycling actions to create sustainability growth or green concepts (Permana et al., 2020). For this reason, various efforts have been made by the global government, especially in Indonesia, one of the efforts that has been made is by strengthening policies in the field of procurement of goods and services by maximizing the purchase of industrial products that have used the green concept or what is referred to as Green Procurement (GP) (PERPRES RI, 2018).

Green Procurement itself is a very important concept not only at the international level but also at the national level because it helps in encouraging the promotion of environmental sustainability to produce positive environmental benefits in the future (Walker & Phillips, 2009)). Green Procurement is defined as the process of finding raw materials, products or services that are estimated to have little adverse impact on the environment around us. In the procurement process with this green concept, organizations and individuals need to integrate environmental concerns in their purchasing process where previously it was only based on quality, performance, and price alone (AlNuaimi et al., 2021; Lacroix, 2008). In another definition, Green Procurement (GP) can be interpreted as a unified concept of procurement policy, the procurement process carried out, and the relationships that occur during the implementation of procurement, all carried out by considering problems related to the environment. The Green Procurement concept is feasible for many companies because it is proven that adopting the GP concept allows companies to be able to increase their revenue and improve their product image to their customers (Shen et al., 2017).

In addition, another study also revealed that modern supermarkets or retailers should be more open about the cost aspects of procuring plastic bag substitutes so that it can be calculated how much profit and loss for the company when viewed from the company's finances. In addition, modern retail consumers also need to understand that the cost of procurement and alternative logistics for replacing plastic bags will also be higher because the storage bags will certainly be thicker and heavier. Another study also states that countries nationally and globally, including Indonesia, have made a legal system to ban plastic bags and replace them with alternative bags such as paper bags, biodegradable bags, or goody bags. However, even though this has been done, there are still a lot of plastic bags in circulation because there is no support from all agencies including modern retailers and consumers (Russell-Bennett, 2018). Although there is overwhelming evidence that replacing single-use plastic bags is an action that leads to positive environmental outcomes. However, a national approach is needed to promote the green concept, especially the concept of green procurement in modern retail, which researchers will examine in this research so that in the end with this research modern retail, the government and consumers will be able to work together to solve alternatives to plastic bags using the concept of Green Procurement in Modern Retail.

METHODOLOGY

In this study, we know what factors affect Green Procurement in Modern Retail in the Bandung area. In this study, there are several exogenous factors that will be tested by researchers, namely Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT), Transformational Leadership (TFL), Innovation Capability (IC), and Transactional Leadership (TSL). In several studies by (AlNuaimi et al., 2021; Khahro et al., 2021), researchers created a new synthesis model of factor analysis that affects Green Procurement in Modern Retail in Bandung City (See Figure 1).

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Figure 1 shows a new synthesis model that will be tested by researchers. From Figure 1 the researchers identified the following hypotheses:

H1: OSK positively and significantly affects GP.
H2: IA positively and significantly affects GP.
H3: GPSC positively and significantly affects GP.
H4: CF positively and significantly affects GP.
H5: MFT positively and significantly affects GP.
H6: TSL positively and significantly affects GP.
H7: IC positively and significantly affects GP.
H8: TFL positively and significantly affects GP.

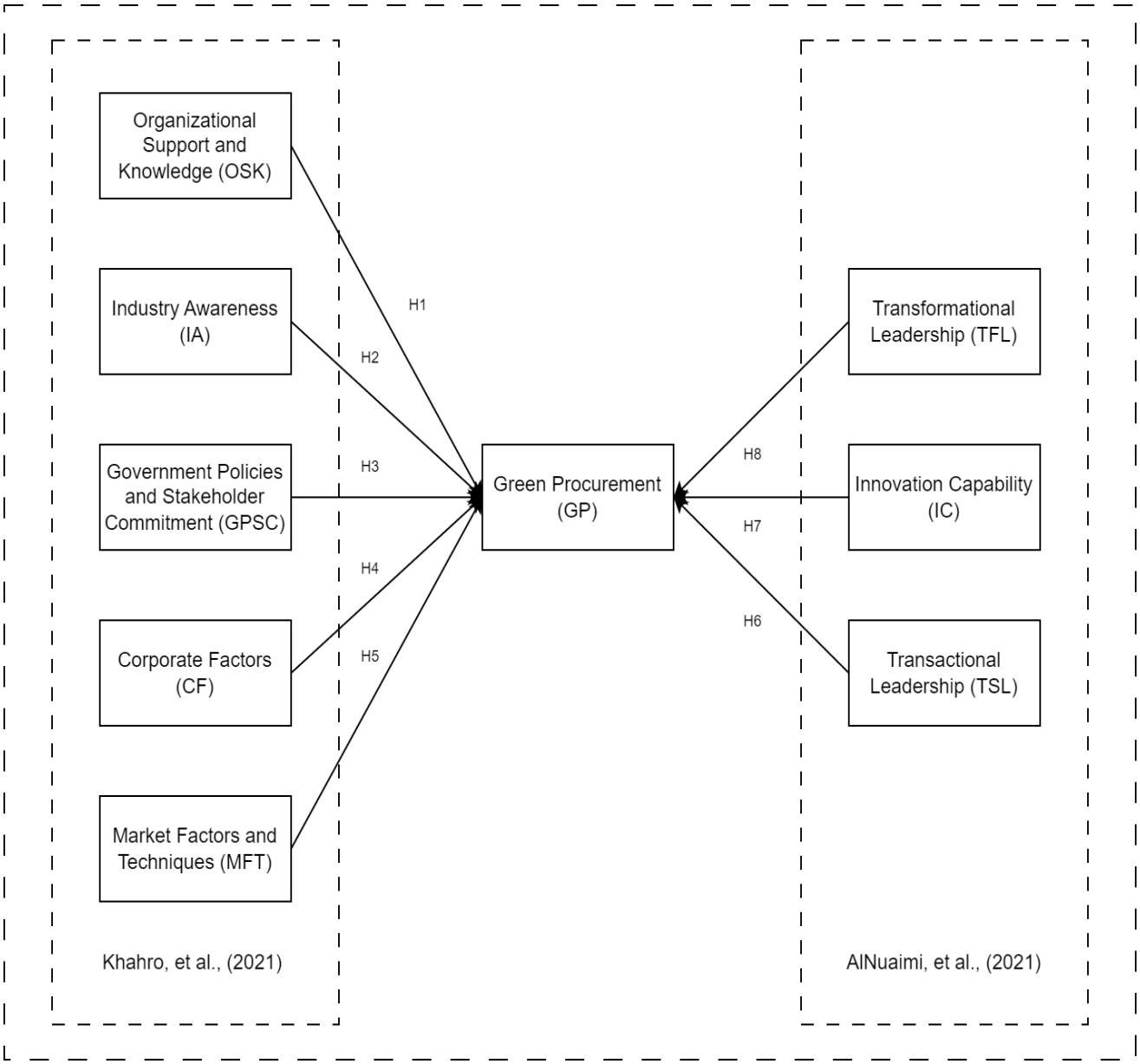

Figure 1. New Synthesis Model

This research was conducted quantitatively using a survey method. Data were collected by distributing closed questionnaires (see Appendix A) containing alternative answers designed using a Likert scale by (AlNuaimi et al., 2021; Khahro et al., 2021). Moreover, a total of 44 respondents of Retail Modern in Bandung were selected as samples using a

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purposive sampling method (Hair Jr et al., 2021). Statistical analysis was used to examine the relationship between the variables, and this involved the application of the structural equation model (SEM) as well as Partial Least Square (PLS).

In this study, a multivariate analysis was employed to simultaneously analyse multiple variables. The second generation of the analysis was also conducted using the Structural Equation Model (SEM). These methodologies enabled the incorporation of unobservable variables, which were only indirectly measured through indicators or latent factors (J. F. Hair et al., 2014).

In data analysis, SEM was an affirmative theory relying on the Covariance-Based Structural Equation Modeling (CB-SEM) method. This method necessitated several assumptions, including sufficient support from the theory, a large sample size, and normally distributed data. However, several challenges were often encountered in meeting these assumptions. To address this issue in the second-generation SEM, the Partial Least Squares (PLS) method was also employed as an alternative analysis approach (Hair Jr et al., 2021).

PLS was commonly used for small samples, although large sample numbers were more capable of improving estimation precision. This method did not require the assumption stating that data distribution should be expected. Construct forms can also use reflective or formative models, with the maximum number of indicators being quite large at 1000 (J. F. J. Hair et al., 2017). In addition, PLS was processed using various software, such as SmartPLS, Warp PLS., Tetrad, PLS-PM, etc. Regarding this study, SmartPLS 4.0 was used to overcome the problematic occurrences (J. Hair & Alamer, 2022; Hair Jr et al., 2021).

ANALYSIS DATA AND DISCUSSION

Descriptive Analysis

At this stage, the study began by describing the results of questionnaire survey data that had been disseminated by researchers on modern retail responses in the city of Bandung. This result contains descriptive statistics consisting of skewness value, average value, kurtosis excess value, and standard deviation value.

Table 1. Descriptive Analysis

Indicator	Mean	Standard deviation	Excess kurtosis	Skewness
OSK1	4.053	0.85	0.178	-0.675
OSK2	4.106	0.827	0.214	-0.72
OSK3	4.051	0.864	0.275	-0.705
OSK4	4.049	0.864	0.122	-0.665
OSK5	4.051	0.848	-0.059	-0.579
IA1	4.024	0.847	-0.134	-0.566
IA2	4.025	0.855	-0.069	-0.566
IA3	3.994	0.883	-0.295	-0.556
IA4	3.965	0.918	-0.579	-0.495
IA5	4.01	0.888	-0.225	-0.611
GPSC1	4.075	0.866	0.05	-0.724
GPSC2	4.063	0.851	-0.054	-0.62
GPSC3	3.945	0.866	-0.247	-0.449
GPSC4	3.926	0.918	-0.041	-0.613
GPSC5	3.934	0.885	-0.269	-0.478
CF1	3.995	0.848	0.22	-0.596
CF2	4.029	0.846	0.151	-0.613
CF3	4.043	0.842	0.023	-0.61
CF4	3.985	0.849	0.003	-0.549
CF5	4.089	0.779	0.635	-0.697
MFT1	3.991	0.922	0.215	-0.78
MFT2	4.074	0.838	0.355	-0.703

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MFT3	4.011	0.886	-0.324	-0.607
MFT4	4.049	0.826	-0.432	-0.478
MFT5	4.075	0.863	0.379	-0.8
TSL1	4.043	0.926	-0.215	-0.701
TSL2	4.099	0.848	0.124	-0.732
TSL3	4.075	0.865	0.205	-0.739
TSL4	4.074	0.863	-0.017	-0.67
IC1	4	0.899	-0.31	-0.611
IC2	4.048	0.837	-0.432	-0.5
IC3	4.035	0.912	0.231	-0.783
IC4	4.085	0.859	-0.135	-0.65
IC5	4.086	0.85	-0.021	-0.693
TFL1	4.055	0.869	-0.471	-0.554
TFL2	4.091	0.865	-0.166	-0.676
TFL3	4.033	0.904	-0.266	-0.665
TFL4	4.079	0.824	-0.355	-0.511
TFL5	4.009	0.92	-0.369	-0.616
GP1	3.994	0.915	-0.275	-0.636
GP2	4.05	0.849	-0.187	-0.575
GP3	4.016	0.87	-0.163	-0.58
GP4	4.015	0.886	0.274	-0.699
GP5	4.085	0.862	0.352	-0.775

The variables above show that the effect of Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT), Transformational Leadership (TFL), Innovation Capability (IC), and Transactional Leadership (TSL) on retail modern in the city of Bandung is largely dominated by affirmative answers to questions asked by researchers.

The highest index is in the OSK2, namely "Is there a green concept specification model in your retail to use alternative plastic bag substitutes?" where this item corresponds to the behavior of retail modern who have model of green procurement to use alternative of plastic bag substitutes.

The lowest index is in the GPSC4, namely "Environmental regulations with plastic bag reduction made mandatory by the Government for modern retail". This is appropriate because now there are many modern retailers in Bandung that use plastic bag substitutes such as goody bags or paper bags or at least plastic that is easily degraded by the environment so as not to pollute the environment.

Outer Model

At the outer model results stage, it aims to evaluate the measurement model where the outer model consists of measuring model validity and measuring model reliability. This reliability and validity test will be measured using the SmartPLS 4.0 application by measuring a set of relationships between indicators and their latent variables (J. F. J. Hair et al., 2017).

To analyze reflective models, outer loading greater than 0.6 is recommended by (J. F. Hair et al., 2014). However, if the outer loading is less than 0.4, the reflective indicator should be removed. When outer loading between 0.4 and 0.7 it is recommended to keep or delete items depending on the outer load (height) of other items. Based on this theory, researchers took a minimum value of 0.4 (See Table 2 and Figure 2) (J. F. J. Hair et al., 2017).

Table 2. Convergent Validity

Indicator	Outer Loading	AVE	Result
CF1	0.735	0.620	Supported
CF2	0.889		Supported

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CF3	0.891		Supported
CF4	0.696		Supported
CF5	0.702		Supported
GP1	0.882		Supported
GP2	0.850		Supported
GP3	0.868	0.732	Supported
GP4	0.850		Supported
GP5	0.826		Supported
GPSC1	0.833		Supported
GPSC2	0.856		Supported
GPSC3	0.840	0.649	Supported
GPSC4	0.756		Supported
GPSC5	0.736		Supported
IA1	0.815		Supported
IA2	0.850		Supported
IA3	0.774	0.637	Supported
IA4	0.799		Supported
IA5	0.748		Supported
IC1	0.866		Supported
IC2	0.875		Supported
IC3	0.636	0.661	Supported
IC4	0.835		Supported
IC5	0.830		Supported
MFT1	0.816		Supported
MFT2	0.837		Supported
MFT3	0.883	0.644	Supported
MFT4	0.868		Supported
MFT5	0.567		Supported
OSK1	0.881		Supported
OSK2	0.883		Supported
OSK3	0.761	0.652	Supported
OSK4	0.806		Supported
OSK5	0.690		Supported
TFL1	0.870		Supported
TFL2	0.894		Supported
TFL3	0.910	0.775	Supported
TFL4	0.901		Supported
TFL5	0.821		Supported
TSL1	0.895		Supported
TSL2	0.892		Supported
TSL3	0.922	0.819	Supported
TSL4	0.910		Supported

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Based on Figure 2 and Table 2, all measuring items have met the outer loading value testing requirements so that they can be said to be valid and can be used to measure each of the latent variables.

The next process carried out by this study is to measure discriminant validity to measure each variable in the conceptual model of the study. The validity of this discriminant wants to know the correlation between constants in the model referred to as cross loadings (See Table 3) (Wong, 2019). Table 3 states that all indicators are valid so there is no problem with the validity of the discriminant. This is because all cross-loading values on each intended construct are greater than the value of other constructs.

The Reliability Test (CR Test) is used to measure the reliability of each construct. This test can be known through the reliability of the composite as well as the alpha Cronbach (Dijkstra & Henseler, 2015). Typically, during reliability analysis, consistency of determinants is obtained when Cronbach's alpha coefficient (α) is at 0.5 or more reflecting acceptable determinants (Henseler et al., 2016) and composite reliability (CR) is accepted when Cronbach's alpha exceeds the minimum acceptable limit of 0.70 (See Table 4) (J. F. Hair et al., 2012; Henseler et al., 2015).

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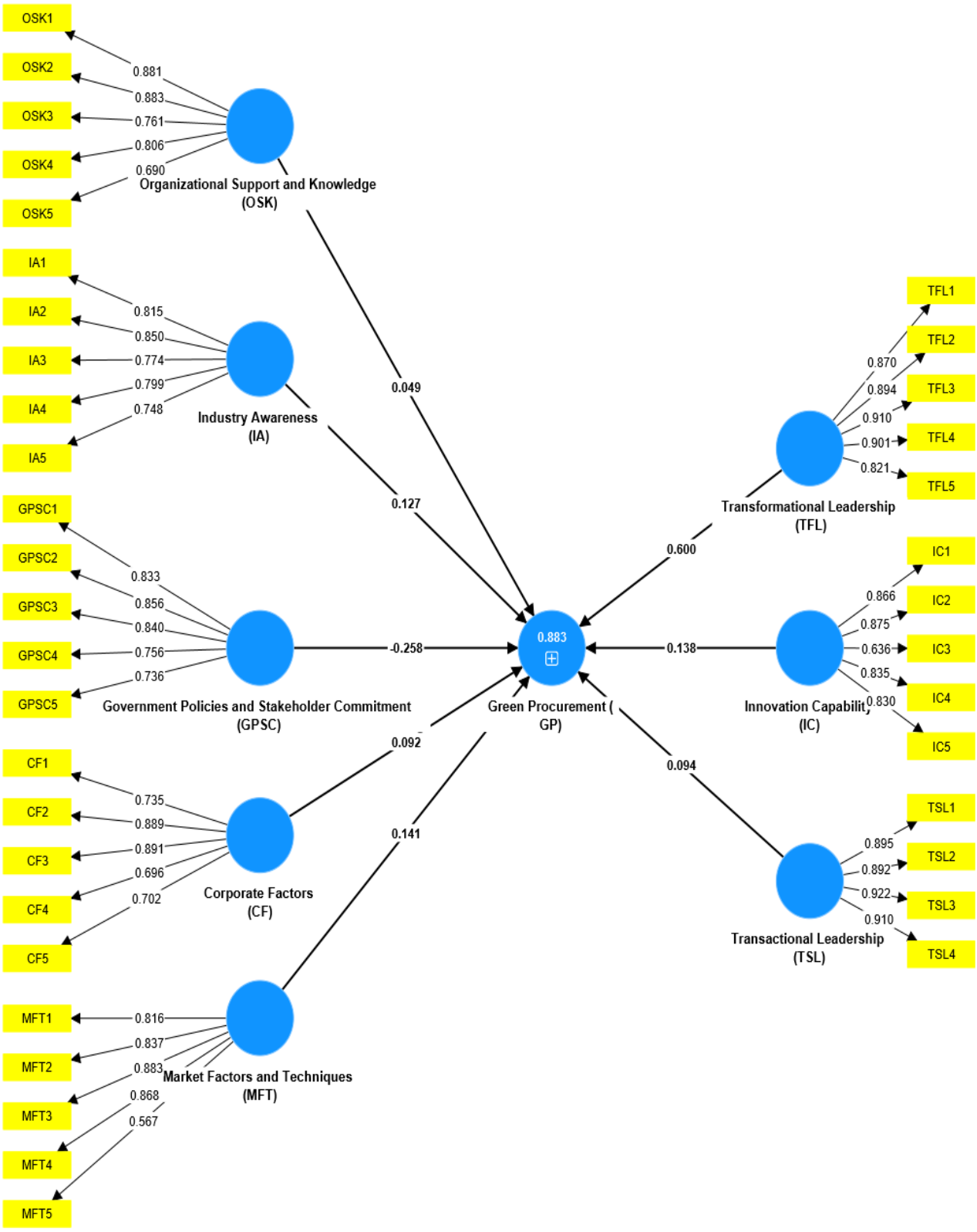

Figure 2. Outer Model Result

Table 3. Cross-loading Analysis

Indicator	CF	GPSC	GP	IA	IC	MFT	OSK	TSL	TFL
CF1	**0.735**	0.648	0.371	0.587	0.409	0.478	0.442	0.507	0.337
CF2	**0.889**	0.620	0.641	0.655	0.669	0.718	0.559	0.635	0.591

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CF3	**0.891**	0.632	0.668	0.770	0.653	0.691	0.636	0.692	0.591
CF4	**0.696**	0.613	0.314	0.567	0.361	0.477	0.455	0.521	0.287
CF5	**0.702**	0.625	0.287	0.495	0.340	0.468	0.444	0.529	0.253
GP1	0.530	**0.419**	0.882	0.593	0.834	0.790	0.505	0.536	0.838
GP2	0.513	**0.387**	0.850	0.525	0.845	0.736	0.484	0.490	0.797
GP3	0.576	**0.385**	0.868	0.656	0.727	0.645	0.487	0.476	0.802
GP4	0.564	**0.418**	0.850	0.639	0.675	0.628	0.551	0.522	0.708
GP5	0.529	**0.440**	0.826	0.585	0.650	0.605	0.535	0.538	0.705
GPSC1	0.648	0.833	**0.445**	0.658	0.509	0.550	0.481	0.714	0.520
GPSC2	0.683	0.856	**0.468**	0.643	0.567	0.599	0.501	0.694	0.535
GPSC3	0.615	0.840	**0.340**	0.602	0.397	0.480	0.452	0.587	0.314
GPSC4	0.587	0.756	**0.337**	0.543	0.362	0.552	0.472	0.522	0.309
GPSC5	0.553	0.736	**0.281**	0.615	0.354	0.395	0.432	0.563	0.235
IA1	0.654	0.526	0.705	**0.815**	0.729	0.674	0.643	0.611	0.640
IA2	0.644	0.551	0.726	**0.850**	0.702	0.687	0.678	0.680	0.632
IA3	0.608	0.687	0.345	**0.774**	0.414	0.474	0.434	0.603	0.333
IA4	0.639	0.716	0.396	**0.799**	0.435	0.500	0.465	0.634	0.387
IA5	0.634	0.728	0.362	**0.748**	0.412	0.476	0.456	0.637	0.365
IC1	0.575	0.453	0.808	0.648	**0.866**	0.792	0.576	0.620	0.742
IC2	0.590	0.448	0.769	0.616	**0.875**	0.781	0.496	0.521	0.734
IC3	0.612	0.630	0.473	0.612	**0.636**	0.584	0.541	0.678	0.447
IC4	0.476	0.400	0.741	0.570	**0.835**	0.619	0.464	0.469	0.760
IC5	0.484	0.429	0.716	0.544	**0.830**	0.608	0.415	0.406	0.808
MFT1	0.625	0.582	0.543	0.616	0.561	**0.816**	0.619	0.698	0.483
MFT2	0.703	0.685	0.555	0.631	0.582	**0.837**	0.612	0.708	0.497
MFT3	0.572	0.440	0.812	0.632	0.834	**0.883**	0.562	0.570	0.769
MFT4	0.584	0.441	0.788	0.574	0.829	**0.868**	0.502	0.494	0.758
MFT5	0.613	0.650	0.346	0.566	0.389	**0.567**	0.473	0.553	0.329
OSK1	0.625	0.518	0.646	0.699	0.621	0.689	**0.881**	0.684	0.542
OSK2	0.603	0.540	0.600	0.647	0.571	0.647	**0.883**	0.695	0.498
OSK3	0.428	0.422	0.304	0.439	0.342	0.383	**0.761**	0.373	0.266
OSK4	0.458	0.436	0.356	0.484	0.386	0.437	**0.806**	0.428	0.308
OSK5	0.457	0.393	0.311	0.477	0.392	0.425	**0.690**	0.382	0.308
TFL1	0.481	0.465	0.732	0.539	0.761	0.599	0.435	**0.434**	0.870
TFL2	0.505	0.455	0.814	0.545	0.819	0.686	0.432	**0.436**	0.894
TFL3	0.519	0.441	0.838	0.555	0.824	0.724	0.450	**0.479**	0.910
TFL4	0.515	0.423	0.817	0.592	0.737	0.638	0.453	**0.447**	0.901
TFL5	0.492	0.418	0.768	0.587	0.692	0.637	0.478	**0.494**	0.821
TSL1	0.663	0.699	0.538	0.723	0.590	0.662	0.565	0.895	**0.496**
TSL2	0.665	0.712	0.513	0.697	0.592	0.656	0.596	0.892	**0.465**
TSL3	0.677	0.693	0.554	0.732	0.569	0.668	0.653	0.922	**0.458**
TSL4	0.670	0.702	0.556	0.704	0.584	0.638	0.639	0.910	**0.465**

Table 4. CR Test

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Variable	α	CR
Corporate Factors (CF)	0.856	0.931
Government Policies and Stakeholder Commitment (GPSC)	0.867	0.887
Green Procurement (GP)	0.908	0.912
Industry Awareness (IA)	0.870	0.918
Innovation Capability (IC)	0.869	0.890
Market Factors and Techniques (MFT)	0.862	0.912
Organizational Support and Knowledge (OSK)	0.876	0.940
Transactional Leadership (TSL)	0.926	0.927
Transformational Leadership (TFL)	0.927	0.929

Table 3 shows that the results of construct reliability tests show that all latent variable values have Cronbach's alpha values at 0.5 or more reflecting acceptable determinants and composite reliability exceeding the minimum acceptable limit of ≥ 0.70. Thus, the construct is acceptable in reliability.

Inner Model

After the estimated model meets the criteria of the measuring model (outer model), the next structural model (inner model) testing is carried out. According to Ghozali & Latan, (2015), the evaluation of structural models (inner models) aims to predict relationships between latent variables. J. F. J. Hair et al., (2017) in Ramayah et al., (2017) suggest looking at the value of the coefficient of determination (R^2), the value of effect size (f^2), and the fit model to assess the structural (inner model).

The R-Square test is used to show how large an exogenous variable is in describing its endogen variable. The smaller the R-square value the smaller the ability of exogenous variables to explain endogenous variables. In this study, there was one endogenous variable, namely Green Procurement (GP) which was influenced by 8 exogenous variables, namely Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT), Transformational Leadership (TFL), Innovation Capability (IC), and Transactional Leadership (TSL).

Table 5. R-Square Analysis

Variable	R-square	R-square adjusted
Green Procurement (GP)	0.883	0.882

From Table 5 above, R^2 the Green Procurement (GP) construct is 0.883. These results show that Green Procurement (GP) variables can be explained by exogenous variables, namely Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT), Transformational Leadership (TFL), Innovation Capability (IC), and Transactional Leadership (TSL) of 88.3% while the rest is explained by other exogenous variables outside this study.

The f^2 test is known as the simultaneous test or Anova test, which is a test to see how all its free variables affect together on their bound variables. The effect size or Cohen effect or f-Square is expressed as follows: small (f^2>0.02), medium (f^2>0.15), and large (f^2>0.35) (Hair Jr et al., 2021).

Table 6. f-Square

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Variable	f-Square	Effect Size
Organizational Support and Knowledge (OSK)	0.009	Small
Industry Awareness (IA)	0.030	Small
Government Policies and Stakeholder Commitment (GPSC)	0.166	Medium
Market Factors and Techniques (MFT)	0.036	Small
Corporate Factors (CF)	0.019	Small
Transactional Leadership (TSL)	0.019	Small
Innovation Capability (IC)	0.024	Small
Transformational Leadership (TFL)	0.698	Large

Table 6 show that Organizational Support and Knowledge (OSK), Industry Awareness (IA), Market Factors and Techniques (MFT), Corporate Factors (CF), Transactional Leadership (TSL), and Innovation Capability (IC) have a small influence on Green Procurement (GP), Government Policies and Stakeholder Commitment (GPSC) has a medium influence on Green Procurement (GP), and Transformational Leadership (TFL) has a large influence on Green Procurement (GP).

To test the model whether it is fit or not is done with two tests namely SRMR and NFI (Hu & Bentler, 1998). The model will be considered to have good fit if the value of the standardized root mean square residual (SRMR) is below 1.00. Another conformity index is the normed fit index (NFI) with the calculation of the value of Chi2 (J. F. Hair et al., 2014)(Bentler &; Bonett, 1980). The value of Chi-Square in this study was compared with the benchmark of the Goodness of Fit concept. Referring to, a Bentler &; Bonett, (1980) safe and acceptable value is a Chi-Square value greater than 0.9.

Table 7. Model Fit

Fit Summary	Saturated model	Estimated model
SRMR	0.103	0.103
d_ULS	10.601	10.601
d_G	5.802	5.802
Chi-square	19607.112	19607.112
NFI	0.565	0.565

The table above shows the model in this study Good Fit because it has an SRMR value below 1.00 and a Chi-Square value of more than 0.9.

Hypothesis Testing

The value of the path coefficient that is in the range of values -1 to +1, where the value of the path coefficient close to +1 represents a strong positive relationship and the value of the path coefficient that is -1 indicates a strong negative relationship. T-statistics aims to determine the value of significancy between variables in the study. The hypothesis is accepted if the T-statistical value is greater than 1.96 whereas if the T-statistical value is less than 1.96 then the hypothesis is rejected or the null hypothesis is accepted (J. F. J. Hair et al., 2017 in Ramayah et al., 2017).

Table 8. Hypothesis Test

Hypothesis	Original sample (O)	T statistics	P values

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Organizational Support and Knowledge (OSK) -> Green Procurement (GP)	0.049	2.565	0.010
Industry Awareness (IA) -> Green Procurement (GP)	0.127	3.936	0.000
Government Policies and Stakeholder Commitment (GPSC) -> Green Procurement (GP)	0.258	9.384	0.000
Corporate Factors (CF) -> Green Procurement (GP)	0.092	2.530	0.011
Market Factors and Techniques (MFT) -> Green Procurement (GP)	0.141	4.430	0.000
Transactional Leadership (TSL) -> Green Procurement (GP)	0.094	3.577	0.000
Innovation Capability (IC) -> Green Procurement (GP)	0.138	3.714	0.000
Transformational Leadership (TFL) -> Green Procurement (GP)	0.600	16.829	0.000

Based on Figure 3, Table 6, and Table 8, Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT), Transformational Leadership (TFL), Innovation Capability (IC), and Transactional Leadership (TSL) significantly and positively affect Green Procurement (GP). This is shown by the test results between Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT), Transformational Leadership (TFL) Innovation Capability (IC), and Transactional Leadership (TSL) with Green Procurement (GP) showing respectively the value of T-Statistic 2.565; 3.936; 9.384; 2.530; 4.430; 3.577; 3.714 and 16.829 (>1.96), f-square value of 0.009; 0.030; 0.166; 0.036; 0.019; 0.019; 0.024; and 0.698 and also p-value of 0.010; 0.000; 0.000; 0.011; 0.000; 0.000; 0.000; and 0.000 (<0.05).

Discussion

This study aims to study and analyze the factor of Green Procurement (GP) in retail modern in the city of Bandung. Based on the test results on Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT), Transformational Leadership (TFL), Innovation Capability (IC), and Transactional Leadership (TSL) significantly and positively affect Green Procurement (GP) so that it can be concluded that the hypothesis H1; H2; H3; H4; H5; H6; H7 and H8 are accepted.

The results of this study are in line with the research conducted by (Khahro et al., 2021) which found that the Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT) was found to affect Green Procurement (GP) activities. This study emphasizes the importance of implementing the green concept procurement to replace plastic bags into environmentally friendly bags. To carry out the importance of the concept of green procurement for alternatives to plastic bags, several factors are needed that influence the creation of procurement itself, including Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT) where this is evidenced by a p value of less than 0.05.

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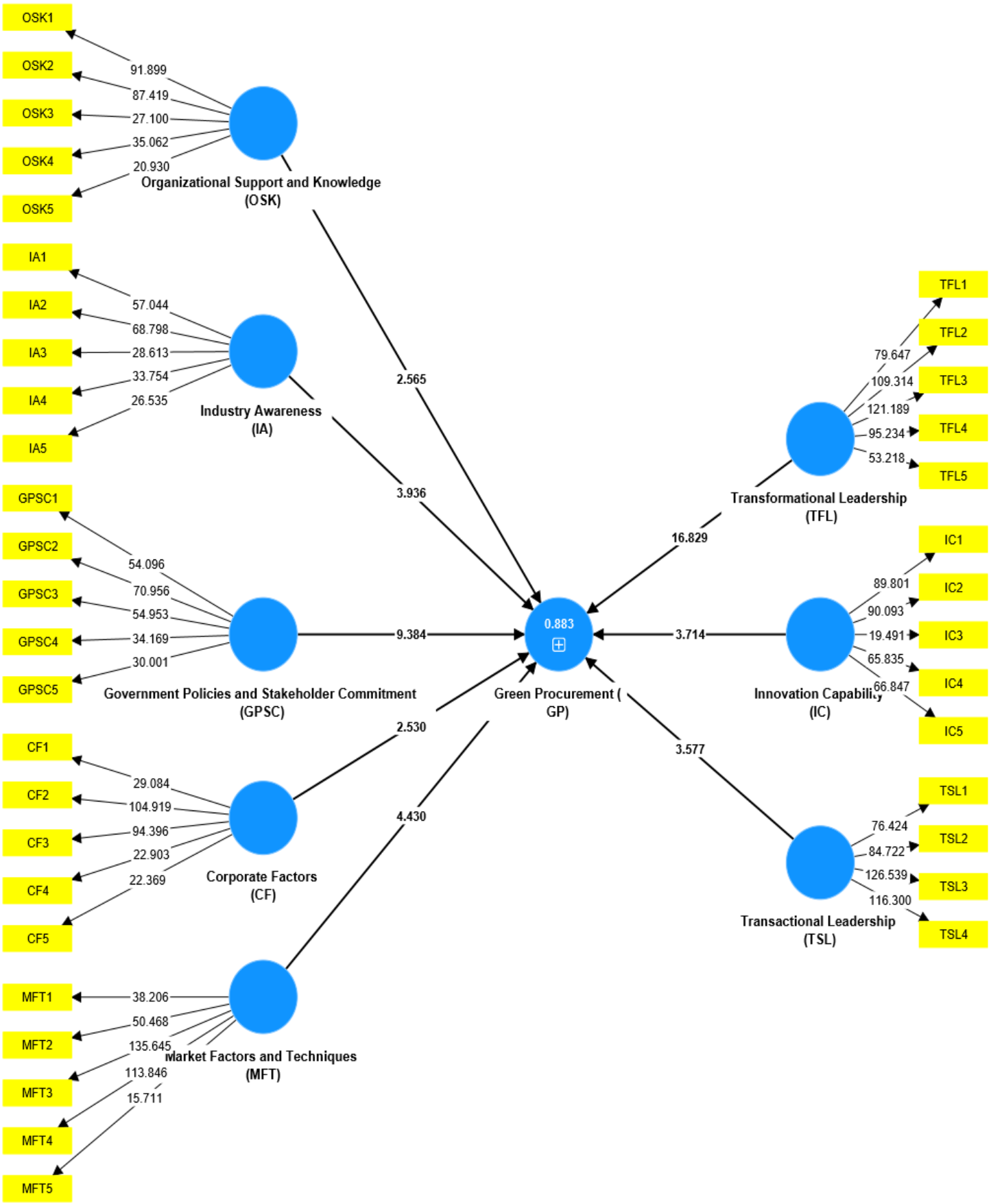

Figure 3. Hypothesis Analysis

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Furthermore, in this new synthesis model, it was found that the Government Policies and Stakeholder Commitment (GPSC) factor plays an important role as evidenced by the value of f-Square medium which is in line with what is happening in the field that with the government policy and its stakeholders, many modern retailers, especially in Bandung, become more aware and implement for the reduction of plastic bags with other bags such as biodegradable bags, goody bags, and paper bags that are more environmentally friendly. This is also evidenced from previous research, there have been several efforts in Indonesia to reduce the single-use plastic bags, as it had drawn the attention of the government. Some campaigns were started by local agencies and individuals in several locations in Indonesia. The efforts surely paid off, as up until 2019, Bogor, Balikpapan, Jambi, Banjarmasin has prohibited the supply of single-use plastic bags in shopping centers, also Bali, which have prohibited the use of plastic bags. In Bandung, the Government of Bandung City stated a local regulation (Perda No. 17 Tahun 2012) which is to give an effort to reduce the usage of plastic bags. The government have done a trial of the paid plastic bags in supermarket and minimarket; Rp200, - per piece, that occurred for 3 months in 2016, resulting in a decrease of plastic bags usage up to 30%. The most recent campaign in Bandung is the Kang Pisman (Reduce, Separate, Utilize) movement, which one of the goals is to persuades the society to stop the use of plastic (Vina & Mayangsari, 2020).

In addition, the results of this study are also in line with research from (AlNuaimi et al., 2021) which found that the factors of Transformational Leadership (TFL), Innovation Capability (IC), and Transactional Leadership (TSL) significantly and positively affect Green Procurement (GP). The results of this research model show that the Transformational Leadership (TFL) factor is a factor that influences dominantly the procurement of plastic bag substitutes using the green procurement concept, which is evidenced by the f-square value which has a size effect of 0.698 (>0.35). This is consistent with other studies that state that there is a significant and positive correlation between leadership style (TFL &; TSL), Green Procurement (GP) and environmental performance. Leadership styles (TFL & TSL) contribute more than 30% to influencing GPs, including attributes of environmental leadership and ethical (Amisono, 2017; Saleem et al., 2020).

CONCLUSION

In this study, researchers can conclude based on the discussion and data on the results of hypothesis testing that have been described by the previous chapter. This study states that there are 8 accepted hypotheses in the total hypotheses tested in this study. From the conceptual model of research, Organizational Support and Knowledge (OSK), Industry Awareness (IA), Government Policies and Stakeholder Commitment (GPSC), Corporate Factors (CF), Market Factors and Techniques (MFT), Transformational Leadership (TFL), Innovation Capability (IC), and Transactional Leadership (TSL) affect Green Procurement (GP) in retail modern in Bandung City.

LIMITATION

This study only uses survey data on modern retail in Bandung City because this study is an initial research to find out what Green Procurement factors need to be examined in replacing plastic bags at the modern retail level. Further research can be further developed using survey data that can be generalized to modern retail in Indonesia and around the world by distributing questionnaires to modern retail in all areas in Indonesia or around the world.

REFERENCE

AlNuaimi, B. K., Singh, S. K., & Harney, B. (2021). Unpacking the role of innovation capability: Exploring the impact of leadership style on green procurement via a natural resource-based perspective. *Journal of Business Research*, *134*, 78–88. https://doi.org/10.1016/j.jbusres.2021.05.026

Amisono, D. C. (2017). *The Relationship Between Ethical Leadership and Sustainability in Small Businesses*.

Bentler, P. M., & Bonett, D. G. (1980). Significance Tests and Goodness of Fit in the Analysis of Covariance Structures. In *Psychological Bulletin* (Vol. 88, Issue 3).

Dijkstra, T. K., & Henseler, J. (2015). Consistent Partial Least Squares Path Modeling. *Management Information Systems Research Center, University of Minnesota*, *39*(2), 297–316.

Ghozali, I., & Latan, H. (2015). *Partial least squares konsep, teknik dan aplikasi menggunakan program smartpls 3.0 untuk penelitian empiris.*

ISSN: 2620-777X

Gómez, I. D. L., & Escobar, A. S. (2022). The dilemma of plastic bags and their substitutes: A review on LCA studies. In *Sustainable Production and Consumption* (Vol. 30, pp. 107–116). Elsevier B.V. https://doi.org/10.1016/j.spc.2021.11.021

Hair, J., & Alamer, A. (2022). *Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research_ Guidelines using an applied example _ Elsevier Enhanced Reader*.

Hair, J. F. J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM).* Long Range Planning. .

Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. In *European Business Review* (Vol. 26, Issue 2, pp. 106–121). Emerald Group Publishing Ltd. https://doi.org/10.1108/EBR-10-2013-0128

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, *40*(3), 414–433. https://doi.org/10.1007/s11747-011-0261-6

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook.*

Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management and Data Systems*, *116*(1), 2–20. https://doi.org/10.1108/IMDS-09-2015-0382

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hu, L.-T., & Bentler, P. M. (1998). Fit Indices in Covariance Structure Modeling: Sensitivity to Underparameterized Model Misspecification. In *Psychological Methods* (Vol. 3, Issue 4).

Iheukwumere, S. O., Nkwocha, K. F., & Tonnie-Okoye, N. (2019). STEMMING PLASTIC BAG POLLUTION IN ANAMBRA STATE: WILLINGNESS OF THE PUBLIC TO ACCEPT ALTERNATIVE BAGS. In *coou African Journal of Environmental Research* (Vol. 2, Issue 1). http://ajer.coou.edu.ng/index.php/journal

Khahro, S. H., Memon, A. H., Memon, N. A., Arsal, A., & Ali, T. H. (2021). Modeling the factors enhancing the implementation of green procurement in the pakistani construction industry. *Sustainability (Switzerland)*, *13*(13). https://doi.org/10.3390/su13137248

Lacroix, R.-N. (2008). *Green Procurement and Entrepreneurship*.

Permana, R., Rizal, A., & Hasan, Z. (2020). Plastic Consumption in Group of Teens and Young Adults from Pangandaran District, Indonesia: A Glimpse of Environmental Awareness among the Locals outside Big Cities. *Asian Journal of Advanced Research and Reports*, 1–9. https://doi.org/10.9734/ajarr/2020/v12i230282

PERPRES RI. (2018). *PERATURAN PRESIDEN REPUBLIK INDONESIA NOMOR 16 TAHUN 2018*.

Ramayah, T., Jasmine, Y. A. L., Ahmad, N. H., Halim, H. A., & Rahman, S. A. (2017). *Testing a Confirmatory model of Facebook Usage in SmartPLS using Consistent PLS*. http://www.theijbi.net/

Russell-Bennett, R. (2018). *Why plastic bag bans triggered such a huge reaction*.

Saleem, M., Qadeer, F., Mahmood, F., Ariza-Montes, A., & Han, H. (2020). Ethical leadership and employee green behavior: A multilevel moderated mediation analysis. *Sustainability (Switzerland)*, *12*(8). https://doi.org/10.3390/SU12083314

Shen, L., Zhang, Z., & Long, Z. (2017). Significant barriers to green procurement in real estate development. *Resources, Conservation and Recycling*, *116*, 160–168. https://doi.org/10.1016/j.resconrec.2016.10.004

Suryadi, B., & Abdurahman, H. (2022). Failure Of The Policy To Limit The Use Of Plastic Bags In Traditional Markets. In *Volatiles & Essent. Oils* (Vol. 9, Issue 1). https://bulelengkab.go.id/detail/artikel/dampak-plastik-terhadap-

Vina, D., & Mayangsari, L. (2020). THE APPLICATION OF THEORY OF PLANNED BEHAVIOR IN SINGLE-USE PLASTIC BAGS CONSUMPTION IN BANDUNG. In *Journal of Global Business and Social Entrepreneurship (GBSE)* (Vol. 6, Issue 18). www.gbse.com.my

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Walker, H., & Phillips, W. (2009). Sustainable procurement: Emerging issues. *International Journal of Procurement Management*, *2*(1), 41–61. https://doi.org/10.1504/IJPM.2009.021729

Wong, K. K. K. (2019). *Mastering partial least squares structural equation modeling (PLS-Sem) with Smartpls in 38 Hours*. IUniverse.

APPENDIX A: Operational Variable

Variable	Indicator	Items	Reference
Organizational Support and Knowledge (OSK)	Is there a process of monitoring and auditing suppliers' compliance with alternatives to the use of plastic bags in your modern retail?	OSK1	(Khahro et al., 2021)
	Is there a green concept specification model in your retail to use an alternative plastic bag replacement?	OSK2	
	Is there a green concept specification model in your retail to use an alternative plastic bag replacement?	OSK3	
	Continuous monitoring, tracking and review systems	OSK4	
	The availability of sustainability expertise and human resources who have special expertise in supporting green procurement of alternative goods to replace plastic bags	OSK5	
Industry Awareness (IA)	There is an international trend about the procurement of alternative bags or plastic bags in modern retail	IA1	
	Has your retail business chosen the appropriate material for the procurement of plastic bag alternatives?	IA2	
	Is there a plastic bag replacement procurement strategy adopted from other modern retail competitors?	IA3	
	Is there a plastic bag replacement procurement strategy adopted from companies outside the sector or other modern retail affiliated companies	IA4	
	The existence of a product design that is used as a basis for determining what raw materials for the procurement of plastic bag substitutes	IA5	
Government Policies and Stakeholder	Is there a demand from government or non-government that encourages the procurement of green plastic bag replacement with other model bags in modern retail?	GPSC1	

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Commitment (GPSC)	Any encouragement from the government in green procedures or practices such as the procurement of alternative plastic bags?	GPSC2
	Government stakeholders are mutually committed to promoting green procurement, especially in reducing plastic bags in modern retail	GPSC3
	Environmental regulations with plastic bag reduction made mandatory by the Government for modern retail	GPSC4
	The government and all other stakeholders are mutually committed to green procurement, including reducing plastic bags in modern retail	GPSC5
Corporate Factor (CF)	There is a company's vision and mission about the environment	CF1
	There is cooperation with shareholders or other stakeholders related to the environment	CF2
	There is coordination between departments in your retail business about alternative procurement plans for the use of plastic bags	CF3
	There is a commitment from executive management to the procurement of plastic bag substitutes	CF4
	Modern retailers are trying to adopt potential information from suppliers about procurement of plastic bag replacements	CF5
Market Factor and Techniques (MFT)	Demand from the market about green concepts must be included in your retail company's KPIs	MFT1
	Is information about alternative products to replace plastic bags available in your retail database?	MFT2
	Are there plastic bag replacement products such as goody bags, paper bags, etc. that are designed to reduce the effects of climate change on the environment in your modern retail?	MFT3
	The benefits of green procurement to the retail business market are understood by the implementation of the use of alternative plastic bags such as paper bags or biodegradable bags	MFT4

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	The choice of plastic bag replacement materials based on their recyclability is listed in your retail green procurement concept	MFT5	
Transactional Leadership (TSL)	My manager reprimands me when I'm not capable of completing my work	TSL1	(AlNuaimi et al., 2021)
	My manager precisely records all my mistakes	TSL2	
	My manager provides me what I want to exchange for my hard work	TSL3	
	My manager informs me that I can get exceptional rewards when I show good work performance	TSL4	
Innovation Capability (IC)	My firm has generated many innovative and valuable ideas	IC1	
	My firm promotes an environment that is encouraging our capability to create innovative and valuable ideas	IC2	
	My firm devotes a lot of time in creating innovative and valuable ideas	IC3	
	My firm believes creating innovative and valuable ideas as being essential activities	IC4	
	My firm actively generates innovative and valuable ideas	IC5	
Transformational Leadership (TFL)	My manager conveys a clear and positive vision of the future	TFL1	
	My manager regards employees as individuals, encourages and support their growth	TFL2	
	My manager gives support and acknowledgment to employees	TFL3	
	My manager nurtures participation, trust, and collaboration among team members	TFL4	
	My manager urges us to think about challenges in new ways and questions assumptions	TFL5	
Green Procurement (GP)	My firm is practicing GP now	GP1	
	My firm is practicing GP now	GP2	
	Our contracts consist of GP criteria	GP3	
	Lifecycle costing is used in the GP evaluation	GP4	
	My firm is ready to pay more to carry out GP	GP5	

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