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Credible Online Reviews of Skincare Products on Brand Equity and Its Impact on Purchase Intention

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Abstract

Skincare is a cosmetic product used to treat the skin of the facial area. Before on purchasing skincare products, users need credible references as a consideration to suit user needs. In this case, online reviews can be a useful reference to support these needs. However, these user needs make online reviews affect the product's brand equity and purchase intention. Referring to the statements and problems that have been described, this research re-examined the relationship between online review, brand equity, and purchase intention according to the study presented by Chakraborty and Bhat (2017). The purpose of the research was to identify the impact of credible online review on brand equity and purchase intention on Skincare Product. This research was processed using the Structural Equation Modeling (SEM) method with the help of LISREL 8.8 software. The results of this study indicate that there is an aspect of confirmation of the prior belief that can affect a credible online review. Meanwhile, the credible online review itself positively affects brand equity. However, no aspects of brand equity or credible online reviews can positively influence purchase intention.

Keywords: Credible Online Review, Brand Equity, Purchase Intention, Structural Equation Modeling



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INTRODUCTION

Skincare is one type of cosmetic that can be useful for treating skin, especially facial skin. These products are made from organic or chemical ingredients that are formulated in such a way that they can overcome skin problems. Although it has many uses, users must still pay attention to details about the product to suit the needs and characteristics of each user's skin. The various ingredients and benefits of skincare make users need credible references that are used as considerations before purchasing skincare products to suit the needs and characteristics of the user's skin. In this case, online reviews can be an effective reference in meeting these needs and, at the same time, will affect brand equity and purchase intention of a brand. Referring to the statements and problems that have been described, this research will examine the relationship between online review, brand equity, and purchase intention according to the statements, theories, and models produced in Chakraborty and Bhat, 2017. It has a final statement: all factors of a credible online review positively impact a credible online review, except for the messaging aspect with a review sidedness factor. In addition, credible online reviews also positively impact brand equity, and brand equity has a positive effect on purchase intention. The purpose of the research was to identify the impact of credible online review on brand equity and purchase intention on Skincare Product.

The method used is the Covariance Based Structural Equation Model (CB-SEM) method. This method is a quantitative method with statistical calculations used to explain or describe the relationship of several test variables (Hair, 2010 in Narimawati and Sarwono, 2017). According to Narimawati and Sarwono (2017), the Covariance Based Structural Equation Model (CB-SEM)

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method has analytical characteristics and functions more to confirm/ensure than explain a problem. These characteristics are in line with this research, which aims to confirm or reaffirm the statements, models, and theories that Chakraborty and Bhat have used in 2017 and the investigation of Cheung et al. in 2008 and 2009. Therefore, this research will be appropriate if processed using the Covariance Based Structural Equation Model (CB-SEM) method.

LITERATURE REVIEW

Online Customer Reviews

According to Mudambi (2010), an online customer review evaluates products/services provided by customers and uploaded on the company's official website or sites from third parties. Consumers can choose the product/service they want through online customer reviews. In addition, consumers can compare and find out the advantages and disadvantages of the product/service to be purchased. However, not everything described in online customer reviews can be trusted. According to Hovland et al. (1953) in Chakraborty and Bhat (2017), there are four factors that can make information persuasive and trustworthy, namely source, message, receiver, and medium.

Cheung, et al. (2009) have research results, namely Review Credibility significantly affects the eWOM review adoption. In addition, normative determinants and several aspects of international determinants (argument strength, source credibility, and confirmation of prior belief also have a significant effect on perceived eWOM review credibility.

Luo, C., et al. (2015) have research results that there is a positive effect of the argument strength on review credibility. Meanwhile, review sidedness does not have a strong effect on review credibility. The Sense of Membership aspect has a moderate effect on review objectivity and review rating on review credibility. This study uses the supporting theory described by Lou, C., et al. (2015) for the review sidedness and review consistency variables.

Cheung, et al. (2008) have research results, namely the Information usefulness aspect has a great influence on adopting information . However, between the aspects of argument quality and source credibility, the only aspects that provide significant aspects of information usefulness are relevance and comprehensiveness . This research adopts theories and hypotheses for source expertise and source trustworthiness variables .

Viopradina and Kempa (2021) have research results that aspects of Brand Awareness and Organizational Association have no effect on Purchase Intention. Meanwhile, Perceived Value , Brand Personality , and Perceived Quality have an effect on Purchase Intention . This study uses the supporting theory described by Viopradina and Kempa (2021) for the attribute variables of brand equity and purchase intention.

Brand Equity

According to Aaker (1996) in Surucu et al. (2019), brand equity is a collection of assets owned by a company related to the company's brand, name, and symbol. These will have a good or bad impact on the company and customers. According to Aaker (1991), several factors influence brand equity,

i.e. brand awareness, brand association, perceived quality, brand loyalty, and brand assets. However, this study does not discuss brand loyalty as users must have experience using these products/services. Meanwhile, the brand asset is a dimension that is difficult to calculate if the aspect taken into account is only based on the consumer's perspective (Aaker, 1991). Therefore, there are 2 (two) aspects of the approach to brand equity, namely firm-based brand equity (FBBE) and customer-based brand equity (CBBE).

Enjelina, E. and Dewi, CK (2021) have research results that aspects of Brand Awareness , Brand Association , and Perceived Quality have a positive impact on purchase intention . Meanwhile , brand loyalty has a positive effect on purchase intention . This study uses the supporting theory described by Viopradina and Kempa (2021) for the variables of brand awareness , brand association , perceived quality , and purchase intention.

Purchase Intention

Kweek (2010) defines purchase intention as a component of consumer cognitive behaviour. Consumers will intend or intend to buy a particular product/service. These purchases can be made through various media, especially with advances in technology and information that the community has now felt, which has brought progress to media that can facilitate daily activities, including shopping activities. Now, consumers can easily shop and make transactions online. Many factors can influence purchase intention, one of which is the dimensions of brand equity (Aaker, 2009, Chakraborty and Bhat, 2017).

METHODOLOGY

This study uses a model adapted from research by Chakraborty and Bhat in 2017. The model will be reviewed using case studies of prospective users and skincare users in Indonesia. Item Statement refers to the research of Cheung et al. (2008) for statements of source expertise and source trustworthiness, Chakraborty and Bhat (2017) for statements of review quality, purchase intention, and credible online reviews, Chakraborty and Bhat (2018) for brand equity statements and Cheung et al. (2009) for the statement of confirmation of prior belief. The model can be seen in Figure 1. Calculation and analysis using the Covariance Based Structural Equation Model (CB-SEM) method is a quantitative method with statistical calculations used to explain or describe the relationship of several test variables (Hair, 2010 in Narimawati and Sarwono, 2017). The data used in this study were collected using the online google form media in the form of a questionnaire. The characteristics of the respondents needed are prospective users and skincare users in Indonesia who are aged 12-25 years. The use of these characteristics is based on a sampling technique in the form of purposive sampling. Data collection was carried out for 8 (eight) days, with 286 respondents collected. After the data is collected, the data will be processed using Structural Equation Modeling (SEM) tools with the help of LISREL 8.8 software.

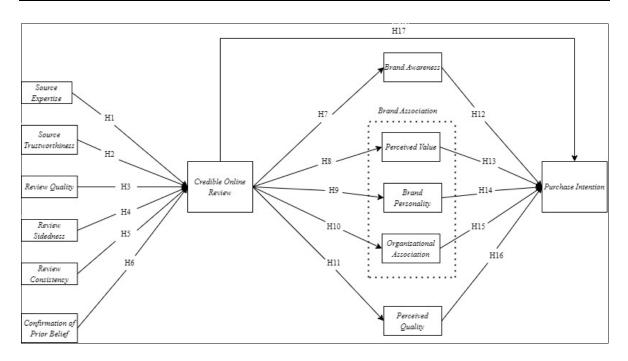


Figure 1. Research Model

FINDINGS AND DISCUSSION

The data processing is carried out using Structural Equation Modeling (SEM) tools with the help of LISREL 8.8 software. There is a model specification and a model fit test. The specified model can be seen in Figure 2.

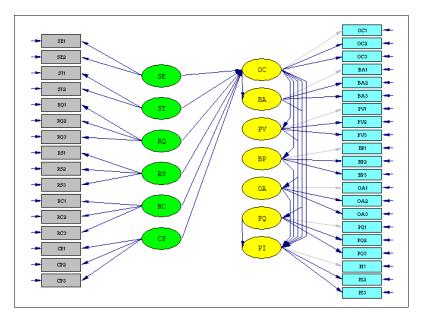


Figure 2. Model Specifications

The description of each variable's symbol can be seen in Table 1.

Table 1 Symbols and Variables

Laten Variable		Laten Variable		
Variables	Symbols	Variables	Symbols	
Source Expertise	SE	Credible Online Review	OC	
Source Trustworthiness	ST	Brand Awareness	BA	
Review Quality	RQ	Perceived Value	PV	
Review Sidedness	RS	Organizational Association	OA	
Review Consistency	RC	Perceived Quality	PQ	
Confirmation of prior belief	CP	Purchase Intention	PI	

After the model is specified, the next stage is the model fit test. There are 3 (three) tests: the overall model fit test, the structural model fit test, and the measurement model fit test. The three tests were carried out to ensure that the model used was suitable for research.

Table 2 Model Fit Test

Fit Measures	Good Fit	Marginal Fit	Result	Analysis	
	Chi Square	1	_l		
χ² (Chi-Square)	< χ _{2tabel} (215.56)	-	3510,12	Bad Fit	
Degree of Freedom	-	-	597		
p-value	>0.05	-	0		
	Absolute Fit		I I		
Goodness of Fit Index (GFI)	≥ 0.9	0,8 ≤ GFI <0,9	0,68	Bad Fit	
Root Mean Square Residual (RMR)	≤ 0,05	-	81	Marginal Fit	
Root Mean Square Error of Approximation (RMSEA)	0.05 < RMSEA ≤ 0,08	(0.13:0.14)	0,11	Good degree of precision	
Expected Cross Validation Index (ECVI)	Approx. ECVI saturated model (1.62)	1.62< ECVI ≤ 45.24	9,57	Marginal Fit	
	Incremental Fit		•		
Tucker Lewis Index atau Non Normed Fit Index (TLI atau NNFI)	≥ 0,9	0,8 ≤TLI< 0,9	0,9	Good Fit	
Normed Fit Index (NFI)	≥ 0,9	0,8 ≤NFI< 0,9	0,89	Good Fit	
Adjust Goodness-of-Fit Index (AGFI)	≥ 0,9	0,8≤AGFI<0,9	0,62	Bad Fit	
Relative Fit Index (RFI)	≥ 0,9	0,8≤RFI<0,9	0,88	Marginal Fit	
Incremental Fit Index (IFI)	≥ 0,9	0,8≤IFI<0,9	0,91	Good Fit	
Comparative Fit Index (CFI)	≥ 0,9	0,8≤CFI<0,9	0,91	Good Fit	

After calculating the goodness of fit on the overall fit test of the model, there are 4 (four) criteria that have a *good fitness level*, 4 (four) criteria are at the *bad fit level*, and 3 (three) criteria have a *marginal fit level*. Therefore, the model can be feasible because it has more than 4 (four) categories with a *good level of fit* and *marginal fit* (Zatnika and Ilmaniati, 2018). After being said to be feasible, the following process is a measurement suitability test that refers to the *standardized loading factor value* and T- *value* Figure 3 and Figure 4. Based on the *standardized loading factor* and T- *values* in Figure 3 and Figure 4, it can be concluded that there is a

relationship between the variables. Not significant, namely the aspects of *source expertise*, *source trustworthiness*, *review sidedness*, *review consistency*, *review quality* and *purchase intention* because they have T - *values* < 1.96 (Wijanto, 2008), and all variables are valid.

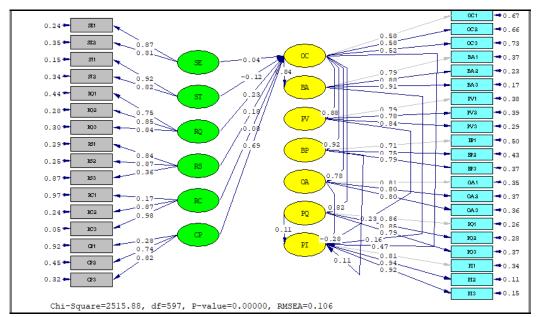


Figure 3. Value of Standardized Loading Factor

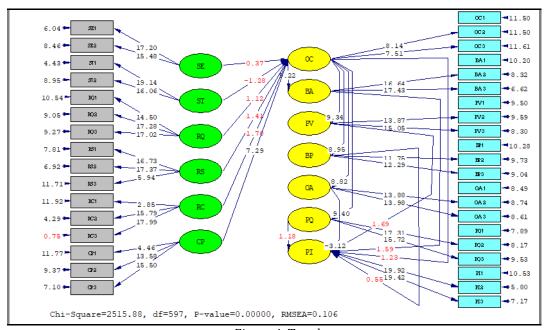


Figure 4. T- value

The following is the calculation of the reliability value in Table 3. Based on these calculations, all variables are reliable.

No	No Variabel SLF SLF^2 CR VE Status						Status
6							

	L	M			Error	Value	Criteria	Value	Criteria	
		0.774	0.0=	0 = 4	SLF	2.0	^ -	0.0	0.7	D 1: 11
1	Source Expertise	SE1	0,87	0,76	0,24	0,9	≥ 0.7	0,8	≥ 0.5	Reliable
	_	SE2	0,81	0,66	0,35					
2	Source	ST1	0,92	0,85	0,15	0,9	≥ 0.7	0,8	≥ 0.5	Reliable
	Trustworthiness	ST2	0,82	0,67	0,34					
3	Review Quality	RQ1	0,75	0,56	0,44	0,9	≥ 0.7	0,7	≥ 0.5	Reliable
		RQ2	0,85	0,72	0,28					
		RQ3	0,84	0,71	0,30					
4	Review Sidedness	RS1	0,84	0,71	0,29	0,8	≥ 0.7	0,6	≥ 0.5	Reliable
		RS2	0,87	0,76	0,25					
		RS3	0,36	0,13	0,87					
5	Review Consistency	RC1	0,17	0,03	0,97	0,8	≥ 0.7	0,6	≥ 0.5	Reliable
		RC2	0,87	0,76	0,24					
		RC3	0,98	0,96	0,05					
6	Confirmation of	CP1	0,28	0,08	0,92	0,7	≥ 0.7	0,5	≥ 0.5	Reliable
	prior belief	CP2	0,74	0,55	0,45					
		CP3	0,82	0,67	0,32					
7	Credible Online	OC1	0,58	0,34	0,67	0,7	≥ 0.7	0,5	≥ 0.5	Reliable
	Review	OC2	0,58	0,34	0,66					
		OC3	0,52	0,27	0,73					
8	Brand Awareness	BA1	0,79	0,62	0,37	0,9	≥ 0.7	0,8	≥ 0.5	Reliable
		BA2	0,88	0,77	0,23					
		BA3	0,91	0,83	0,17					
9	Perceived Value	PV1	0,79	0,62	0,38	0,9	≥ 0.7	0,7	≥ 0.5	Reliable
		PV2	0,78	0,61	0,39					
		PV3	0,84	0,71	0,29					
10	Brand Personality	BP1	0,71	0,50	0,50	0,8	≥ 0.7	0,6	≥ 0.5	Reliable
	Ž	BP2	0,75	0,56	0,43					
		BP3	0,79	0,62	0,37	1				
11	Organizational	OA1	0,81	0,66	0,35	0,9	≥ 0.7	0,7	≥ 0.5	Reliable
	Association	OA2	0,80	0,64	0,37	, ´		,		
		OA3	0,80	0,64	0,36	1				
12	Perceived Quality	PQ1	0,86	0,74	0,26	0,9	≥ 0.7	0,7	≥ 0.5	Reliable
	The contract of the contract o	PQ2	0,85	0,72	0,28	1				
		PQ3	0,79	0,62	0,37	1				
13	Purchase Intention	PI1	0,81	0,66	0,34	1,0	≥ 0.7	0,8	≥ 0.5	Reliable
		PI2	0,94	0,88	0,11	_,-	- *	-,-		
		PI3	0,92	0,85	0,15					

The next stage is the structural model fit test which will analyze the hypotheses used in the study and identify the results of the coefficient of determination and parameter coefficients. Then, hypothesis testing is carried out based on the T - *values* with details which can be seen in Table 4. Meanwhile, the parameter coefficients can be seen in Figure 5.

```
Structural Equations
OC = 0.043*SE - 0.12*ST + 0.23*RQ + 0.18*RS + 0.083*RC + 0.69*CP, Errorvar. = 0.13 , R^{e} = 0.87
    (0.12) (0.093) (0.21) (0.13) (0.049) (0.094) (0.041)
    0.37
             -1.28
                                                     7.29
                                                                       3.11
BA = 0.84*OC, Errorvar.= 0.29 , R^{\epsilon} = 0.71 (0.091) (0.046)
    9.22
                       6.29
PV = 0.88*OC, Errorvar.= 0.22 , R^{\epsilon} = 0.78
            (0.045)
    (0.094)
    9.34
BP = 0.92*OC, Errorvar.= 0.15 , Re = 0.85
                      (0.046)
    (0.10)
    8.95
                       3.24
OA = 0.78*OC, Errorvar.= 0.39 , R^{e} = 0.61
    (0.089) (0.062)
    8.82
                       6.23
PQ = 0.82*OC, Errorvar.= 0.33 , R^{e} = 0.67
             (0.050)
                                                                           , R° = 0.66
PI = 0.47*OC + 0.16*BA + 0.23*PV + 0.11*BP - 0.28*OA + 0.11*PQ, Errorvar.= 0.34
    (0.38) (0.10) (0.14) (0.21) (0.091) (0.094) (0.049)
             1.59
    1.23
                      1.69
                                0.55
                                        -3.12
                                                  1.18
                                                                      6.87
```

Figure 5 Parameter Coefficient

Based on the parameter coefficient values in Figure 5, it can be concluded that there is a positive or negative correlation. An example of a positive correlation is found in the correlation between the variables of *brand awareness* and *credible online reviews*. The *credible online review value* will increase by 0.84 if the *brand awareness value* increases by 1.

Table 4 Hypothesis Testing

			T-Values	
No		Hipotesis	Nilai	Status (<1,96)
1	Н1	There is significant positive impact of <i>Source Expertise</i> (SE) on <i>Credible Online Review</i> (OC)	0,37	Accepted
2	Н2	There is significant positive impact of Source Trustworthiness (ST) on Credible Online Review (OC)	- 1,28	Accepted
3	Н3	There is significant positive impact of <i>Review Quality</i> (RQ) on <i>Credible Online Review</i> (OC)	1,12	Accepted
4	H4	There is significant positive impact of Review Sidedness (RS) on Credible Online Review (OC)	1,41	Accepted
5	Н5	There is significant positive impact of Review Consistency (RC) on Credible Online Review (OC)	1,7	Accepted
6	Н6	There is significant positive impact of Conformation of Prior Belief (CP) on Credible Online Review (OC)	7,29	Rejected
7	Н7	There is significant positive impact of Credible Online Review (OC) on Brand Awareness (BA)	9,22	Rejected
8	Н8	There is significant positive impact of Credible Online Review (OC) on Perceived Value (PV)	9,34	Rejected
9	Н9	There is significant positive impact of Credible Online Review (OC) on Brand Personality (BP)	8,95	Rejected
10	H10	There is significant positive impact of Credible Online Review (OC) on Organization Association (OA)	8,82	Rejected
11	H11	There is significant positive impact of Credible Online Review (OC) on Perceived Quality (PQ)	9,4	Rejected

12	H12	There is significant positive impact of Brand Awareness (BA) on Purchase Intention (PI)	1,59	Accepted
13	H13	There is significant positive impact of Perceived Value (PV) on Purchase Intention (PI)	1,69	Accepted
14	H14	There is significant positive impact of Brand Personality (BP) on Purchase Intention (PI)	0,55	Accepted
15	H15	There is significant positive impact of Organization Association (OA) on Purchase Intention (PI)	- 3,12	Accepted
16	H16	There is significant positive impact of There is significant positive impact of Perceived Quality (PQ) on Purchase Intention (PI)	1,18	Accepted
17	H17	There is significant positive impact of Credible Online Review (OC) on Purchase Intention (PI)	1,23	Accepted

Based on the results of hypothesis testing in Table 4, it can be concluded that several variables do not have a significant relationship when used in case studies of prospective users and *skincare users* in Indonesia. Meanwhile, several variables still have a significant relationship. This relationship is described in the H6-H11 hypothesis. The magnitude of the relationship that occurs between variables can be seen in the results of the coefficient of determination of each relationship between dependent and independent variables. The results of the coefficient of determination can be seen in Table 5.

Table 5 Coefficient of Determination

Var	\mathbb{R}_2	Error	
Dependent	Independent		
Credible Online Review (OC)	Source Expertise (SE)	0,87	0,13
	Source Trustworthiness (ST)		
	Review Quality (RQ)		
	Review Sidedness (RS)		
	Review Consistency (RC)		
	Confirmation of prior belief (CP)		
Brand Awareness (BA)	Credible Online Review (OC)	0,62	0,38
Perceived Value (PV)	Credible Online Review (OC)	0,68	0,32
Brand Personality (BP)	Credible Online Review (OC)	0,74	0,26
Organization Association (OA)	Credible Online Review (OC)	0,53	0,47
Perceived Quality (PQ)	Credible Online Review (OC)	0,58	0,42
Purchase Intention (PI)	Credible Online Review (OC)	0,53	0,47
	Brand Awareness (BA)		
	Perceived Value (PV)		
	Brand Personality (BP)		
	Organization Association (OA)		
	Perceived Quality (PQ)		

Variables that have a significant relationship according to the hypothesis test in Table 4 can be concluded and described in Figure 6

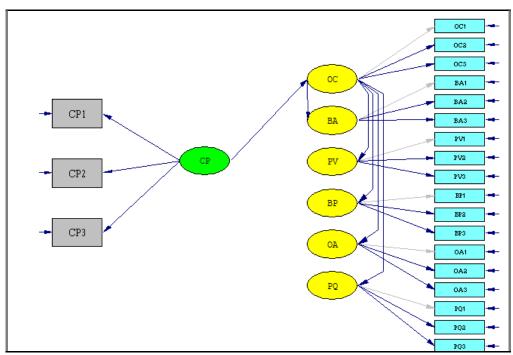


Figure 6 Hypothesis Test Results

CONCLUSION AND FURTHER RESEARCH

After calculating using Structural Equation Modeling (SEM) with the help of LISREL 8.8 software, it can be concluded that some discrepancies distinguish between Chakraborty and Bhat's research in 2017 with the results of this study which uses case studies of prospective users and skincare users in Indonesia. The aspect that affects the credible online review is only the aspect of confirmation of prior belief. The credible online review aspect has a positive effect on brand equity. However, no aspect affects purchase intention.

Chakraborty and Bhat (2017)	Result of The Research
Aspects of source and review quality have a	Online customer reviews have a significant
greater effect on online customer reviews	impact on brand awareness, perceived value,
	and organizational associations with a
Online customer reviews have a significant	significant impact on purchase intention, on
impact on brand awareness, perceived	skincare products
value, and organizational associations with a	
significant impact on purchase intention	There is no significant impact of online
	customer review on purchase intention.

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