



Factor analysis of the influence of creativity and product innovation on consumer satisfaction on handicraft products, Bandung city

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ABSTRACT

Bandung is a tourism city with a wide variety of handicraft products that attract tourists. This study aims to determine the relationship between creativity and product innovation on consumer satisfaction of generation Z and millennials. In this study, 110 questionnaires were distributed online to consumers in the city of Bandung, West Java. The data obtained were then processed using multiple regression analysis with the help of SPSS 25 software. The results of this study indicate that there is a direct influence between creativity and consumer satisfaction. In addition, product innovation was also found to have an effect on consumer satisfaction. The results in this study obtained a score of 54.2%, this score indicates that there is an influence between the variables of creativity and product innovation on customer satisfaction. This study is proposed to emphasize the importance of creativity and innovation skills in product development, especially in the handicraft industry in the city of Bandung

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INTRODUCTION

The role of technology in industrial progress is currently a factor that affects the industry itself (Ajaningrum, 2018). In this perspective, creativity is an important element for organizations seeking continuity in a competitive market (Aditi, 2017). According to Alge (2006) creativity is closely related to the organization's ability to create and discover something new. Anderson (2014; 2010; 2004) states that organizations must consider between two options, namely being creative or doing routine habits. Amabile (2005; 2004) Organizational motivation to initiate creative action is determined by organizational ability, self-confidence, and desire to always develop (Beer and Frese, 2003). In addition to creativity, product innovation is also one of the factors that have an important role in building organizational strength in the market (Alexiev and Jansen, 2010). Product innovation can be a differentiator from products offered by competitors (Chou JR, 2004). Consumers will be very interested in using a product or service if there are values and benefits that are different from others

(Martins, 2002). Consumers today prefer companies or organizations that provide more creative and innovative products with attractive features. If the company can provide good and attractive products, then consumer expectations will feel high (Valencia and Jimenez, 2010).

Creativity and innovation have become important determinants of the performance, success, and long-term viability of the organization. However, creativity and innovation are complex phenomena and require skills from a leader, especially in the context of SME organizations. Leaders who are able to develop creativity and product innovation capabilities will be able to compete with competitors and attract consumers. Consumer decisions in making purchases are the results that have been formulated by the company on products that have been adjusted (Ernawati and Kurniawati, 2020). In the context of SMEs, especially handicrafts in the city of Bandung, the role of creativity and innovation is needed to develop products. The physical condition and topography of the city of Bandung which consists of mountainous areas, hills, and coastal areas (sea) holds a lot of potential in several economic sectors, especially the handicraft industry sector. If it is predicted that the economic growth of the city of Bandung in the future is still quite active, especially the growth of the creative industry that empowers SMEs to support economic activities in several villages, sub-districts, and several districts in West Java. The development of small and medium enterprises (SMEs) has a very important role for economic growth for the local community, economic growth and employment also plays a role in the distribution of development results.

The importance of the role of Micro, Small and Medium Enterprises (MSMEs) in developing the people's economy is shown by the enactment of the RI Law number 9 of 1995, which was then followed by the Indonesian government regulation number 32 of 1998 concerning the guidance and development of small businesses (Adiansah and Ratyaningrum, 2017). This research is proposed to fill the gap, especially in assessing creativity and product innovation in the context of the handicraft industry in the city of Bandung. Although there are many researchers who study creativity and product innovation (Ernawati and Kurniawati, 2020; Adiansyah and Ratyaningrum, 2017; Ajaningrum and Sidi, 2018) there are still very few who study it in the context of SMEs, especially the handicraft industry in the city of Bandung. The formulation of the problem in this research are: 1) Does product creativity affect customer satisfaction?, 2) Does product innovation affect customer satisfaction?, 3) Do creativity and product innovation affect consumer purchasing decisions?.

RESEARCH METHOD

This study uses a quantitative analysis approach by adopting multiple regression analysis techniques. The sample in this study is 110 consumer respondents. The sampling technique in this study is non-probability sampling with incidental sampling. According to Sekaran (2016) incidental sampling is a sampling technique based on chance at that time which is sampled if there is a match as a sample. The data sources and data methods used in this study were observation, interviews, and questionnaires or questionnaires. Meanwhile, secondary data were collected from several local government publications and business magazines, journals and textbooks. The technique used to measure creativity (X1), product innovation (X2), and customer satisfaction (Y) is a Likert scale which has five alternative answers: 1. Strongly Disagree (SD) to 5. Strongly agree (SA).

RESULTS AND DISCUSSIONS

Validity and Reliability

Tabel 1. Validity test

Variable	Item	r count	r critical	Information
Creativity (X1)	x1	0,735	0,30	Valid
	x2	0,729	0,30	Valid
	x3	0,573	0,30	Valid
	x4	0,636	0,30	Valid
	x5	0,829	0,30	Valid

	x6	0,746	0,30	Valid
	x7	0,647	0,30	Valid
Product Innovation (X2)	x8	0,868	0,30	Valid
	x9	0,673	0,30	Valid
	x10	0,635	0,30	Valid
	Y1	0,642	0,30	Valid
Customer Satisfaction (Y)	Y2	0,576	0,30	Valid
	Y3	0,567	0,30	Valid

The table above shows that the statement items on each variable X1 (creativity), X2 (product innovation) and Y (customer satisfaction) are valid by looking at each item above the critical r. The reliability test can be seen as follows:

Table 2. Reliability test

Variabel	Item	Cronbach's Alpha	Description
Creativity (X1)	x1	0,753	Reliabel
	x2	0,742	Reliabel
	x3	0,765	Reliabel
	x4	0,734	Reliabel
	x5	0,725	Reliabel
	x6	0,750	Reliabel
	x7	0,751	Reliabel
Product Innovation (X2)	x8	0,763	Reliabel
	x9	0,762	Reliabel
	x10	0,755	Reliabel
Customer Satisfaction (Y)	y1	0,764	Reliabel
	y2	0,753	Reliabel
	y3	0,763	Reliabel

Table 2 above shows that the statement items on each variable X1 (creativity), X2 (product innovation) and Y (customer satisfaction) show reliable. The Multicollinearity test is:

Table 3. Uji multikolinearitas

Coefficients ^a			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Creativity (X1)	.693	1.443
	Product Innovation (X2)	.741	1.350

a. dependent variable: Customer Satisfaction (Y)

The calculation results in table 1.3 above show that there are no problems in terms of multicollinearity between independent variables in the regression model, so there are no problems. The results of the multiple linear analysis are as follows:

Table 4. Multiple regression analysis

Coefficients ^a								
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
	B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.735	2.507		1.091	.278		
	Creativity (X1)	.299	.120	.179	2.499	.014	.487	.222
	Product Innovation (X2)	.521	.102	.379	5.098	.000	.629	.422

a. Dependent Variable: Customer satisfaction

The calculation results obtained in table 4 show the acquisition value of constant (a) 2.735 and the value of the regression coefficient on the creativity variable is 0.299 and for product innovation 0.521, the regression equation is obtained as follows:

$$Y = 2.734 + 0.299 X_1 + 0.521 X_2$$

This shows that there is a positive value that shows the greater creativity and product innovation provided by the organization, especially the handicraft industry in Bandung, the greater the perceived satisfaction of consumers when buying products. The correlation analysis of eating can be seen as follows:

Table 5. Correlation analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735 ^a	.542	.530	3.79173

a. Predictors: (Constant), Inovasi (x2), kreativitas (x1)

The results obtained based on the calculation of table 5 show that the value of the multiple correlation coefficient (R) is 0.735. This means that the result is between 0.60 – 0.79. This shows that the relationship between creativity and product innovation on consumer satisfaction has a strong relationship. The hypothesis test is as follows:

Table 6. Hypothesis testing

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2038.085	3	679.362	47.245	.000 ^b
	Residual	1725.262	120	14.377		
	Total	3763.347	123			

a. Dependent Variable: Customer satisfaction (Y)

b. Predictors: (Constant), Product innovation (X2), creativity (X1)

The results obtained in the hypothesis test in table 6 above show that the regression model obtained is 47.245 with p-value = 0.000. Thus the results show that H1 is acceptable and has an influence on customer satisfaction. The results of the influence of X1 on Y, are as follows:

Table 7. The effect of creativity on customer satisfaction

Variable	t-count	Prob (sig)	H ₀	Information
Creativity (X1)	5,368	0,000	Rejected	Significant to α = 0,05

Table 7 shows the magnitude of the t-count value when compared with t-table, then the obtained value is greater than the t-table value at a significance level of 5% (5.368 > ttable = 1.980) meaning that H0 is rejected at the = 0.05 level so that the H0 test is rejected because 0.000 < 0.05. The test of the effect of the variable X2 (product innovation) on Y (customer satisfaction) is as follows:

Table 8. Effect of product innovation on customer satisfaction

Variabel	t-count	Prob (sig)	H ₀	Information
Product innovation (X2)	2,479	0,014	Ditolak	Significant to α = 0,05

The results in table 8 show the magnitude of the tcount value when compared to the t table, the tcount value is greater than the ttable value with a significance level of 0.05 (2.479 > ttable = 1.980). This informs that H0 is rejected at the level of = 0.05. These results indicate that the H0 test is

rejected because $0.014 < 0.05$ and also this informs that there is a significant effect of product innovation variables on customer satisfaction. The results of the coefficient of determination can be seen as follows:

Table 9. Results of the coefficient of determination

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.736 ^a	.542	.530	3.79173

a. Predictors: (Constant), Product innovation (X2), Creativity (X1)

The result of obtaining the coefficient of determination (R^2) in table 9 is 0.542. These results indicate that simultaneously this value has an influence between the variables X1 (Creativity) and X2 (Product Innovation) on Y (Customer satisfaction) of 54.2%. As for 45.8% influenced by other factors that are not included in the variables studied. Each of these effects can be calculated by multiplying the standardized coefficients by the zero-order correlation in the table below:

Table 10. Standardized coefficients and Zero-order correlation partial determination coefficient

Table 10: Standardized coefficients and Zero-order correlation partial determination coefficient					
Coefficients ^a					
Model		Standardized Coefficients	Correlations		
		Beta	Zero-order	Partial	Part
1	(Constant)				
	Creativity (X1)	.379	.629	.422	.315
	Product innovation (X2)	.179	.488	.222	.154

a. Dependent Variable: Customer satisfaction (Y)

Thus the results in the table above obtained $0.379 \times 0.629 = 0.238$. This means that there is a 23.8% contribution in explaining/influencing customer satisfaction in the handicraft industry in the city of Bandung. While the variable product innovation on customer satisfaction obtained 0.087. Thus, this shows that there is a contribution of 8.7% in explaining customer satisfaction with handicraft industry products in the city of Bandung. The recapitulation in hypothesis testing is as follows:

Table 11. Recapitulation

No.	Hipotesis	Statistic	koef reg β_i	T_{hit}	Sig.	α	Test decision	Great influence
1.	Product creativity affects customer satisfaction	$H_0 : \beta_2 = 0$ $H_1 : \beta_2 \neq 0$	0,520	5,098	0,000	0,05	H0 rejected X1 has a direct effect on Y	23,8%
2.	Product innovation affects customer satisfaction	$H_0 : \beta_1 = 0$ $H_1 : \beta_1 \neq 0$	0,120	2,499	0,014	0,05	H0 rejected X2 has a direct effect on Y	8,7%
	Total influence							54,2%

CONCLUSION

Based on the research explanation above, the results of this study conclude that there is a positive influence between creativity and product innovation on customer satisfaction in Pacitan City, East Java Province. These results and findings are supported by research by Ernawati (2020), Baldassarre (2017), Castellacce (2011), which states that the creativity of a product and innovation can affect customer satisfaction. This finding also reinforces the need to develop products especially in the context of SMEs in order to increase sales, especially in the current situation where competitors are increasingly emerging. In order for the handicraft industry in the city of Bandung to remain productive and have good performance, several alternatives can be carried out either through coaching, technology learning and training on product development.

References

- Anjaningrum, W, and Sidi, A (2018). Kreatifitas Dan Inovasi Produk Industri Kreatif. Conference On Innovation And Application Of Science And Technology, September, 61-70.
- Ades, C., Figlioli, A., Sbragia, R., Porto, G., Plonski, G., Celadon, K. (2013). Implementing Open Innovation: The Case Of Natura, IBM And Siemens. *Journal Of Technology Management & Innovation*, 8, 12-25.
- Aditi, H. (2017). Pengaruh Inovasi Dan Kreativitas Terhadap Kepuasan Konsumen Pada UMKM Di Kota Medan. *Journal Of Chemical Information And Modeling*, 7(1), 1-9.
- Alge, B. J., Ballinger, G. A., Tangirala, S., & Oakley, J. L. (2006). Information Privacy In Organizations: Empowering Creative And Extrarole Performance. *Journal Of Applied Psychology*, 91: 221-232.
- Anderson, N, Potocnik, K, And Zhou (2014) Innovation And Creativity In Organizations: A State Of The Science Review, Prospective Commentary, And Guiding Framework. *Journal Of Management*. Vol. 40 No. 5.
- Anderson, N., & Costa, A. C. (2010). Innovation And Knowledge Management: The Constant Idyll Of Change. In N.
- Anderson, N., De Dreu, C. K. W., & Nijstad, B. A. (2004). The Routinization Of Innovation Research: A Constructively Critical Review Of The State Of The Science. *Journal Of Organizational Behavior*, 25: 147-173.
- Amabile, T. M., Barsade, S. G., Mueller, J. S., & Staw, B. M. (2005). Affect And Creativity At Work. *Administrative Science Quarterly*, 50: 367-403.
- Amabile, T. M., Schatzel, E. A., Moneta, G. B., & Kramer, S. J. (2004). Leader Behaviors And The Work Environment For Creativity: Perceived Leader Support. *The Leadership Quarterly*, 15: 5-32.
- Alexiev, A, and Jansen (2010). Top Management Team Advice Seeking And Exploratory Innovation: The Moderating Role Of TMT Heterogeneity. *Journal Of Management Studies*, 47: 1343-1364.
- Baer, M, and Frese, M (2003). Innovation Is Not Enough: Climates For Initiative And Psychological Safety, Process Innovations, And Firm Performance. *Journal Of Organizational Behavior*, 24: 45-68.
- Baldassarre, B, Calabretta, G, and Bocken, M (2017). Bridging Sustainable Business Model Innovation And User-Driven Innovation: A Process For Sustainable Value Proposition Design. *Journal Of Cleaner Production*, 147, 175-186.
- Barasa, L., Knoben, J., Vermeulen, P., Kimuyu, P, Kinyanjui, B. (2017). Institutions, Resources And Innovation In East Africa: A Firm Level Approach Research Policy, 46(1), 280-291.
- Baas, M, De Dreu, C and Nijstad, B. (2008). A Meta-Analysis Of 25 Years Of Mood-Creativity Research: Hedonic Tone, Activation, Or Regulatory Focus? *Psychological Bulletin*, 134: 779-806.
- Chou, J (2004) A Creativity-Based Design Process For Innovative Product Design. *Int J Ind Ergonom* 34(5):421 - 443.
- Daragahi, G. A (2017) The Impact Of Innovation On Customer Satisfaction: A Study Of The Cosmetics Producer In Tehran. *Faculty Of Business Economics And Entrepreneurship. International Review* No. 12.
- Danneels (2002) The Dynamics Of Product Innovation And Firm Competences. *Strategic Management Journal* 23(12):1095-1121.
- Dvorakova and Faltejskova (2016). Development Of Corporate Performance Management In The Context Of Customer Satisfaction Measurement, *Social And Behavioral Sciences*, 230, 335-342.
- Davies, M, and Jamal. (2005) Determining Customer Satisfaction From Mobile Phones. *Journal Of Marketing Management* 21: 755-778.

- Ernawati, dan Kurniawati (2020) Pengaruh Kreativitas Dan Inovasi Produk Terhadap Kepuasan Konsumen Di Steak House Noodles. *ISOQUANT: Jurnal Ekonomi, Manajemen Dan Akuntansi*. Vol. 4 No. 1, 2020.
- Forrester. R (2000) Capturing Learning And Applying Knowledge: An Investigation Of The Use Of Innovation Teams In Japanese And American Automotive Firms. *Journal Of Business Research*, 47, 35–45.
- Isaksen, S, and Ekvall (2010) Managing For Innovation: The Two Faces Of Tension In Creative Climates. *Creativity And Innovation Management*, V. 19, N. 2, P. 73-88, 2010.
- Martins, E, and Martins, N. (2002) An Organizational Culture Model To Promote Creativity And Innovation. *Journal Of Individual Psychology*, V. 28, N. 4, P. 58-65.
- Madjar, N, and Ortiz-Walters, R. (2008). Customers As Contributors And Reliable Evaluators Of Creativity In The Service Industry. *Journal Of Organizational Behavior*, 29: 949-966.
- Rich J (2003) Brain Storm. Tap Into Your Creativity To Generate Awesome Ideas And Remarkable Results. Career Press, Franklin Lakes, NJ.
- Shane, Ulrich (2004) .Technological Innovation, Product Development, And Entrepreneurship In Management Science. *Management Science* 50 (2):133-144
- Valencia, J, Jiménez, and Jiménez, D (2010) Organizational Culture As Determinant Of Product Innovation. *European Journal Of Innovation Management*, V. 13, N. 4, P. 466-480.
- Visser, G And Dankbaar, B (2002) Creativity In Multidisciplinary New Product Development Teams. Blackwell Publishers Ltd.