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In Search of Product Uniqueness: Insight From Indonesia

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ABSTRACT

This paper aimed to examine the factors which generate the uniqueness of products. This study developed 26 indicators of product uniqueness. Afterwards, the indicators were grouped using factor analysis. In this research, 250 respondents were participated, which according to Kaiser-Meyer-Olkin's measure of sampling adequacy, is suitable for research purpose. The factor analysis test eliminated 9 criterias of product uniqueness, which left 17 criterias that can be categorised into 4 groups using principal component analysis extraction method and varimax rotation. The first group category is 'basic value', which consists of 7 indicators. The second group category is differentiation, which has 3 indicators. The third category is technology, which comprises of 3 indicators. The fourth category is additional function, which consists of 4 indicators. The findings demonstrate that 'handmade' is the strongest indicator of product uniqueness. Based on the correlation test, there are 3 discoveries. First, product differentiation highly correlates with culture. Second, spectacular product correlates with bigger size. Third, luxury product correlates with bigger size. The research findings indicate that the manufacturer should start including cultural elements in regards of production or service, and concentrate on size for luxury products.

Type of Paper: Empirical

Keywords: Product Uniqueness; Product Differentiation; Product Innovation

1. Introduction

Studies on product uniqueness have become the primary interest of many strategic management and business strategy scholars for more than three decades. Lynn and Judy (1997) identify the antecedentsandconsequences ofthe desire ofunique consumer product. Cavusgiland Zou (1994) and Jusoh and Parnel (2008) mention that the degree of product uniqueness highly correlates with the marketing performance. However, they did not mention specifically what aspect that generates product uniqueness. Some experts found that uniqueness can also be introduced in service areas (Dibb & Simkin, 1993; Valikangas & Lehtinen, 1994; Millar, Choi, & Chen, 2005). However, most of them only explained general concept of service positioning strategy instead of service uniqueness aspect. Other scholars have observed the correlation between product uniqueness and manufacturing infrastructure. St John and Harrison (1999) explained that manufacturing infrastructure plays an important role to create product uniqueness.

Similarly, Bloch (1995), Rao, McLaughlin and Hawkes (1995) state that manufacturing organization is crucial to develop new product uniqueness and increased positive consumer response. In addition, Salavou and Avlonitis (2008) found that product uniqueness is essential for small and medium enterprises. However, they fail to discover the specific aspects of product uniqueness.

According to a study of product uniqueness by Swink and Hegarty (1998) and Franke and Schreier (2008), uniqueness is a result of great reliability, durability, fitness, performance, and the extent of exclusiveness and rareness. Despite being able to discover the aforementioned factors of product uniqueness, this study fail to provide more detailed dimensions.

Early work of Karger (1966) found that product uniqueness is the outcome of a manufacturing innovation. Several scholars believe that manufacturing capabilities are vital to create uniqueness (Goldhar & Lei, 1995; Swift & Raines, 1999; Fynes, De Burca, Brannick, & Glynn, 2000). Study of Cil and Ramazan (1998) highlighted the role of expert system manufacturing in product design. Noble (1995, 1997) found that manufacturing capabilities are crucial on promoting product innovation. Likewise, Narasimhan and Das (1999) assert that manufacturing flexibility is needed to develop a new product with high uniqueness.

Although product uniqueness has been widely discussed and examined, there was a knowledge-gap regarding the factors associate with product uniqueness. Thus, it motivated this study to investigate product uniqueness aspects derived from consumer perspective. Knowing the perspective of consumers is essential since it will disclose what kind of features they need on a product.

Following this introductory section, this paper is structured as follows. First, literature review and conceptual framework are detailed. Second, the method used to manage empirical testing is explained. Third, the results are presented. This paper ends with the discussion of findings, conclusion, and advices of future research.

2. Literature Review

Product Uniqueness

Some scholars argued that people are unhappy if they use similar product like others (Fromkin, 1970; Snyder & Fromkin, 1980). Furthermore, Lynn and Harris (1997) argue that each consumer has different desire for unique products. They believe that every consumer has a need for uniqueness and propensity to admire scarce product. In the words of Valikangas and Lehtinen (1994), uniqueness is the core of differentiation strategy. They assert that differentiation strategy should focus on adding value, such as uniqueness of products or services. According to Rao, McLaughlin and Hawkes (1995), uniqueness plays an important role when a company wants to launch a new product. Moreover, the popularity of a new product is determined by the extent of its uniqueness. Similarly, Bloch (1995) state that a unique product has more positive consumer response and easily acquire marketplace accomplishment.

Product Differentiation

According to Holcombe (2009), the aim of product differentiation is not merely to create

a different product, but also to make a better product. Moreover, he states that product differentiation can be the engine of economic advancement. Hamilton and Richards (2009) and Chung, Lin and Hu (2013) found that the level of product differentiation positively affects its retail margin.

Chung, Lin, and Hu (2013) examined the relationship between product differentiation and bundling strategy. The findings show that product differentiation can increase consumer and social surplus. In a study of product differentiation, Davcik and Sharma (2015) discover that in Industrial Organization (IO) concept, product differentiation can help companies to avoid price war, which can jeopardize profit and market share. Moreover, the result suggests that product differentiation will build market niche and new marketplace.

Product Innovation

Lofsten (2014) explains that product innovation is very crucial in total product life-cycle administration. Additionally, he argues that naturally, product innovation is "highly uncertain" and requires high level of manufacturing capabilities. As claimed by Hoonsopon and Ruenrom (2012), product innovation can be viewed from technology and customers' perspectives. Later, they state that product innovation is better to be look at through consumers' perspectives. In addition, they argue that product innovation is a result of high level of manufacturing capability. While previously mentioned studies only focus on manufacturing capability, Henke and Zhang (2010) has introduced a different focus on product innovation. Based on the results, that suppliers are vital sources of product innovation. Similar findings were found by Azadegan, Dooley, Carter and Carter (2008). Griffin and Hauser (1996) and Carlsson (1991) have similar findings regarding the importance of product innovation on product performance.

Conceptual Framework

Defining the clear indicators of product uniqueness is difficult. This is mainly caused by many interpretation of tangible and intangible uniqueness aspects from customer's standpoint. Consistent opinion about the definition of product uniqueness is relatively erratic since technology and manufacturing capability can help the development of new product rapidly. However, there must be some reliable features that repeatedly occurred in what customer considers as a unique product. These reliable features are best retrieved from customer's perspective because they are the final user of the products. Another ambiguous element of product uniqueness is the extent of its indicators association. Ambiguity in the indicators of product uniqueness can create a misperception regarding what customers truly need. Hence, a clearer uniqueness indicators and association among them will help the manufacturer to develop new product with superior level of uniqueness.

3. Research Methods

This study administered simple mean rank and factor analysis to get specific groups of product uniqueness indicators. All data which collected from 250 respondents have undergone Kaiser-Meyer-Olkin measure of sampling adequacy to determine sampling acceptability. The total of initial eigenvalues is employed to see how many groups can be formed from 26 original indicators, gathered from early interview among 50 respondents of master degree students. Judgment sampling is applied in this research. 250 master degree students were selected

Table 1. Sample Information

No	Aspect	Score (n=250)			
1	Gender	Male	Female		
		112/44.8%	138/55.2%		
2	Age	<20	21-30	31-40	>40
		35/14%	95/38%	57/22.8%	63/25.2%
3	Monthly Income (USD)	200 – 500	501 – 800	>800	Others
		90/36%	83/33.2%	52/20.8%	25/10%
4	Career	Govn Officer	Employee	Student	Entrep
		54/21.6%	96/38.4%	50/20%	50/20%
5	Education	Diploma	Bachelor	Master	Ph.D
		41/16.4%	148/59.2%	45/18%	16/6.4%

Table 2. Indicators of Unique Product/Service

Rank	Indicator	Mean
1	Handmade	4.8
2	Comfort	4.7
3	Staff	4.7
4	Culture	4.6
5	Lux	4.6
6	Diff	4.5
7	Natural	4.5
8	Spect	4.5
9	Bigger	4.5
10	Facilitate	4.5
11	Dependable	4.4
12	Spirit	4.4
13	Rare	4.3
14	Durable	4.3
15	Techno	4.1
16	Del	4.1
17	Beauty	4.1

to participate in this survey. Rotated component matrix and varimax rotation is managed to determine the composition of indicator for each group. To examine the association of product uniqueness indicators, the Pearson Correlation Coefficient (PCC) test is utilized.

4. Result

General information of research samples is portrayed in table 1.

5. Indicators of Unique Product

This study used 26 indicators gathered from customer perspective of what they called unique product or service. Afterwards, all indicators were ranked based on respondent's response in term of uniqueness aspect. Minimum mean score of 4.0 was applied as cut-off point to select acceptable indicators that can truly reflect the uniqueness of a product. Justification of cut-off point is based on consideration that mean score of 4.0 relatively reflects high importance from respondent standpoint. The result of ranked indicators is shown table 2.

Table 2 shows that nine indicators were eliminated. The best three indicators of product uniqueness are handmade, comfort, and staff. In order to apply factor analysis for 17 indicators, the Kaiser-Meyer-Olkin measure of sampling adequacy was used to check sampling acceptability.

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.881
Bartlett's Test of Sphericity	Approx. Chi-Square	1170.294
	df	136
	Sig.	.000

Table 4. Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Comp	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.511	32.416	32.416	5.511	32.416	32.416	2.642	15.541	15.541
2	1.309	7.698	40.114	1.309	7.698	40.114	2.191	12.888	28.429
3	1.143	6.726	46.840	1.143	6.726	46.840	2.169	12.757	41.186
4	1.052	6.191	53.031	1.052	6.191	53.031	2.014	11.845	53.031
5	.966	5.680	58.712						
6	.901	5.298	64.010						
7	.774	4.552	68.561						
8	.753	4.431	72.992						
9	.692	4.072	77.064						
10	.630	3.704	80.769						
11	.587	3.451	84.220						
12	.566	3.331	87.550						
13	.512	3.011	90.562						
14	.480	2.824	93.386						
15	.433	2.545	95.931						
16	.381	2.244	98.175						
17	.310	1.825	100.000						

Extraction Method: Principal Component Analysis.

As the score of KMO in table 3 is 0.881, it is confirmed that the sampling adequacy is acceptable. Hence, the data in this study can be used for further analysis. To discover how many groups can be formed from 17 indicators, the total of initial eigenvalues is used as screening indicator.

Table 4 shows that optimum group that can be formed from 17 criteria is four with cumulative of 53.031%. Four components of indicator are the optimum result because total initial eigenvalues for more than four groups is below 1.00. To get the best composition of all indicators for each component, the present study used rotated component matrix score.

Table 5 shows the final iteration for varimax rotation method. It is revealed that component one comprises seven indicators, which are comfort, facility, staff, bigger, luxury, dependable, and rare. Component two has three indicators such as handmade, differentiation, and culture. Component three comprises of three indicators which are spiritual, technology, and durable. Component four has four indicators which are delicious, beautiful, natural, and spectacular. After that, they were named as "basic value"; "differentiation"; "technology"; and "additional function".

Table 5. Rotated component matrixa

	Component			
	1	2	3	4
Hand	.438	.563	-.031	.105
Diff	-.046	.709	.323	.026
Culture	.179	.821	.112	.118
Delic	.375	.039	-.113	.564
Beauty	.035	-.020	.117	.798
Spirit	.200	.161	.616	.077
Comf	.591	.143	.465	.130
Facil	.726	-.119	.139	.049
Staff	.465	.309	.220	.190
Nat	.116	.429	.268	.548
Spect	.177	.259	.246	.547
Big	.458	.359	.277	.373
Tech	.017	.066	.730	.116
Dur	.270	.188	.690	.127
Lux	.668	.240	.163	.174
Dep	.434	.010	.338	.393
Rare	.423	.253	.027	.135

Extraction method: principal component analysis.

rotation method: varimax with kaiser normalization.

A. Rotation converged in 7 iterations.

Table 6. Correlation of Indicators

	Hand	*Diff*	*Cul*	*Del*	*Beauty*	*Spirit*	*Comf*	*Fac*	*Staff*	*Nat*	*Spect*	*Big*	*Tech*	*Dur*	*Lux*	*Dep*	*rare*
Hand	1.00																
Diff	0.21	1.00															
Cul	0.45	0.53	1.00														
Del	0.24	0.11	0.17	1.00													
Beauty	0.16	0.07	0.16	0.29	1.00												
Spirit	0.23	0.22	0.24	0.11	0.20	1.00											
Comf	0.31	0.25	0.30	0.22	0.22	0.39	1.00										
Fac	0.17	0.10	0.13	0.26	0.14	0.17	0.40	1.00									
Staff	0.36	0.24	0.33	0.24	0.26	0.27	0.40	0.27	1.00								
Nat	0.29	0.34	0.40	0.24	0.35	0.27	0.36	0.16	0.34	1.00							
Spect	0.21	0.22	0.30	0.23	0.27	0.26	0.32	0.22	0.21	0.43	1.00						
Big	0.41	0.30	0.38	0.31	0.25	0.33	0.46	0.29	0.36	0.39	0.56	1.00					
Tech	0.18	0.21	0.17	0.08	0.15	0.26	0.33	0.08	0.22	0.22	0.24	0.26	1.00				
Dur	0.22	0.32	0.31	0.20	0.18	0.42	0.40	0.28	0.35	0.38	0.26	0.42	0.39	1.00			
Lux	0.36	0.17	0.37	0.26	0.19	0.26	0.47	0.38	0.30	0.37	0.34	0.49	0.18	0.36	1.00		
Dep	0.23	0.18	0.23	0.29	0.29	0.22	0.40	0.30	0.35	0.33	0.29	0.38	0.27	0.36	0.40	1.00	
rare	0.25	0.10	0.20	0.15	0.14	0.19	0.29	0.12	0.33	0.25	0.23	0.31	0.15	0.16	0.29	0.19	1.00

Correlation among seventeen indicators was confirmed by Pearson Correlation test as depicted in table 6. Result in table 6 showed that there are two strong correlations among indicators represented by above 0.5 correlation score. First, there is a strong correlation between product differentiation and culture (0.53). This finding confirmed that from customer standpoint, unique product is a product that

inserts traditional or cultural aspect whether in its design, process, delivery, or how the product is promoted. These kinds of products include "keris" (traditional knife blade form many regions in Indonesia), "batik tulis" (traditional fabric and clothes) or craftsmanship products such as sculpture, painting, and handmade furniture. Second, there is a strong correlation between bigger size and spectacular perception (0.56). This finding confirmed that from customer view, something is called spectacular when it has bigger size than average. Real application can be found in some products like cars (limousine), animals (dinosaurs), or even tourist destination (Mount Bromo). Complete correlation scores for all indicators are shown in table 6.

6. Discussion

Customer claimed that unique product is frequently built by handmade. Naturally, product which built by handmade has something special that machines could not do. Handmade products tend to have more details and personal touch. Pattern, design, and shape which are created by human hand have discontinuous sequence that can promotes the one and only product. Handmade products are difficult to copy because it was built with tacit knowledge. On the other hand, products that insert cultural or traditional elements would probably have more opportunity to become unique. The cause of this phenomenon may be the difficulty of re-creating the cultural and traditional elements.

Some customers also assumed that something luxurious tend to have the size bigger than average. Cases are including cars, motorcycle, houses, and jewelry. In contrast, previous studies, the result shows that customers do not view product uniqueness as result of manufacturing capability. This might be caused by general condition of Indonesia manufacturing which is relatively less competitive in the global industry. This lowers customer trust on machinery and manufacturing process.

Beside of built by handmade, customers are generally believed that unique product should distinctively different in its tangible design, offers high level of comfort, or looks very expensive (with application of premium or rare materials). Meanwhile, in service business like hotels, uniqueness appears from staffs who served guests. Staff uniqueness associates with high level of politeness, courteousness, and spirit of helpfulness. Another indicator for service uniqueness is the extent of spiritual ambience especially in tourism sector. The best example of the spiritual ambience practice is Bali.

7. Conclusion

This study explored robust indicators of product uniqueness from customer's standpoint, which are needed to help manufacturer reformulates his/her business strategy and to achieve business sustainability. Some steps were used to answer the research questions. First, mean rank score was used to select the best uniqueness indicators. Then, factor analysis technique was used to determine how many groups of components can be formed from the selected indicators. In the final step, this study employed Pearson Correlation Coefficient test to discover the relationship that occurs among selected indicators.

There are three important findings of this study. First, the best indicator of product uniqueness is handmade. Second, product uniqueness can be categorized into four dimensions. Third,

there are strong relationship between product differentiation and culture, in addition to bigger size and spectacular perception. Future research is needed to see the consistency of present indicators with additional aspects such as brand reputation, and country maker image.

8. Limitation of the Study

This paper has two limitations. First, the uniqueness criteria for goods and services is not specifically differentiated. Second, the samples are limited only for master degree students and therefore, further research should be applied in more varied consumers.

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