To What Extend Does The Technology Disrupstion Affect The Sale Of Smes Banana Chips Products In Bandar Lampung?

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Abstract. Small and Medium-Sized Enterprises (SMEs) in Indonesia, which is also known as Usaha Mikro Kecil dan Menengah (UMKM), play a significant role in determining national economic performance. Banana chips are the most well-known product in Bandar Lampung. As the provincial capital of Lampung Province, Bandar Lampung becomes the center of trade and services sector which is a vital sector of the downstream industry activity. One of the vital aspect in the downstream of Banana chips industry is selling. This study aims to examine the effect of disruptive technology on the sale of SMEs Banana Chips products in Bandar Lampung. This study conduct the quantitative approach by using multiple regression linear analysis. The findings show that the regression model of selling aspect has 0.594 in R^2 value. It means that the regression model is able to represent the real condition about 59,4%. According to the model, among the 6 (six) predictor variables, the most-influencing variable on the sale of Banana chips products is online-based promotion.

1. Introduction

The existence of technology disruption effects the development in many ways. Disruptive technology clearly emphasizes the easiness, in terms of reducing the mobility, in order to meet people needs. However, the biggest challenge in facing disruptive technology era is infrastructure preparedness both hard infrastructure such as fiber optic network and soft infrastructure such as policy. As one of significant sectors in determining local and regional development, Indonesian Government should have formulated industrial policy in facing the era of disruptive technology (Sulaksono, 2018). Law no. 3 of 2014 about National Industry puts industrial sector as one of primary economic sector in Indonesia. The vision of national industrial development in Indonesia is becoming a formidable industrial country which is seen from 3 characteristics: 1) a strong and equitable national industrial structure, 2) highly competitive industries at global level 3) innovation and technology-based industrial activities (Ministry of Industry, 2015). As one of strategies in pursuing the vision of national industry, Indonesian Government formulate an affirmative policy for small and medium industries.

Small and Medium-Sized Enterprises (SMEs) in Indonesia, which is also known as Usaha Mikro Kecil dan Menengah (UMKM), play a significant role in determining national economic performance. According to Bank Indonesia (2012), the existence of SMEs in Indonesia is quite dominant in determining both national and local economic performance. As the provincial capital of Lampung Province, Bandar Lampung plays a strategic roles in regional development especially in the development of Sumatera. Industrial activities in Bandar Lampung should have become one of the backbone of regional economic. However, according to Gross Regional Domestic Product (GDRP) of Bandar Lampung from 2010 to 2016, the growth average of industry sector is only 5,75% annually which placed the industry sector in 11th position of 17 sectors. Referring to Badan Pusat Statistik Kota Bandar Lampung (2016), in 2014 the number of industrial units in Bandar Lampung reached 9.908 units with the proportion is 2% for medium-large industries, 25% for small industries and 75% for home industries. Data from BPS Bandar Lampung (2016) revealed that home industry in Bandar Lampung has the biggest number. Banana chips are the most well-known product in Bandar Lampung which produced by SMEs Banana chips in Bandar Lampung. Banana chips industries has been seen as a vital asset in local economic development and employment promotion in Bandar Lampung.

As the biggest city in Lampung Province, Bandar Lampung becomes the center of trade and services sector which is a vital sector of the downstream industry activity. One of the vital aspect in the downstream of Banana chips industry is selling. The existence of disruptive technology is undeniable and directly force the small and medium industries to upgrade and to adapt the shift of customer demands to their products. Those who cannot adapt and upgrade their innovation will be left behind

(Windell in Chishkwe and Smith, 2012). This study aims to examine about to what extent the disruptive technology affects the sale of SMEs banana chips products in Bandar Lampung. The study is conducted in Jl. Pagar Alam, which is most-well known as Gang PU, as the center of SMEs Banana Chips in Bandar Lampung.

2. Methodology

The research object of this study is SMEs Banana Chips in Gang PU, Bandar Lampung. There are 23 SMEs Banana Chips there. This study develops variable by elaborating the concept of disruptive technology and the aspects in developing SMEs. Zanni (2017) revealed the habitude of disruptive technology era is shown by 1) the use of internet in industrial business process, 2) robotic technology utilization in industrial business process, 3) the use of artificial intelligence in industrial business process and 4) the computational data usage in industrial business. Therefore, this study involves annual average of the sale of banana chips as dependent variable and the habitudes of disruptive technology era as the predictor variables. Here is the predictor variables in this study: 1) the number of sales via internet/ online transaction (kg), 2) the number of sales by using delivery service (kg), 3) the number of sales abroad (kg), 4) the number of product sales outside Lampung Province (kg), 5) the number of product sales outside of Bandar Lampung (kg), 6) internet-based product promotion (dummy variable). This study conducts multiple linear regression analysis. Instead of sampling, this study uses all population in the analysis.

3. Findings and Analysis

The glance of SMEs Banana Chips in Gang PU Bandar Lampung shows us that the trend of product sales is decline. The average decline in sales of banana chips from 2012 to 2017 is approximately 3.858 kg per year (Table 1).

No	SMEs Banana Chips	Sales Difference in 2012 and 2017 (in Kg)
1	Keripik Siger	800
2	Keripik AHHAS	300
3	Jom-Jom	-9,000
4	Keripik Royon	0
5	Oleh-Oleh Khas Lampung "Wisa"	-300
6	Keripik Nayla	2,000
7	Cesylia	-1,000
8	Saudagar	200
9	Arabar Shop	0
10	Keripik Wagiman	-10,220
11	Keripik Rizka	-32,850
12	Askha Jaya 1	12,000
13	Askha Jaya 2	12,000
14	Askha Jaya 3	12,000
15	Askha Jaya 4	12,000
16	Sumber Rezeki	-3,600
17	Puri Jaya 1	-24,000
18	Puri Jaya 2	-24,000
19	Puri Jaya 3	-24,000
20	Puri Jaya 4	-24,000

No	SMEs Banana Chips	Sales Difference in 2012 and 2017 (in Kg)
21	Ali Baba	2,400
22	Keripik Yaya	14,400
Average Sales Difference		**-3,858**

Table 1. Sales Difference of SMEs Banana Chips in 2012 and 2017

The sales is an important aspect in determining the sustainable of SMEs Banana Chips business in Bandar Lampung. By using regression analysis, the study about the impact of disruptive technology on the sales of SMEs Banana Chips products can be revealed. Here is the regression model:

$$Y = -39.130,96 + 21.842,16X_1 \quad (1)$$

Information:
Y = The number of sold banana chips products (Banana Chips) (kg)
X_1 = Internet-based product promotion (dummy variable)
X_2 = The number of sales by using delivery service (kg)
X_3 = The number of product sales by using online transaction (kg)
X_4 = The number of sales abroad (kg)
X_5 = The number of sales outside of Lampung Province (kg)
X_6 = The number of sales outside of Bandar Lampung (kg)

The value of R^2 of the model is 0,594. The values are assumed that the model can represent about 59,4% of real condition. Referring to the model, it is shown that only 1 (one) significant independent variable that can be a predictor variable in this model while the other variables are not significant enough to determine the model since they have the level of significance is higher that 0,05. The variable is "internet-based product promotion". Here is the table of significance level of independent variables:

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-39130.969	8757.019		-4.469	.000
	ol_promotion	21842.169	5652.278	.792	3.864	.002
	delivery_service	42.011	51.083	.196	.822	.424
	transaction_ol	-1.413	3.294	-.091	-.429	.674
	sells_abroad	-33.777	36.859	-.208	-.916	.374
	sells_province	17.139	30.361	.162	.564	.581
	sells_city	21.636	52.023	.073	.416	.683

a. Dependent Variable: sold_product

Table 2. The Level of Significance of Independent Variables

According to the table, it is known that B value in Under standardized Coefficients for each variable is vary.
The model reveals that disruptive technology has not affected all aspects in sales product except the promotion with internet-based only. SMEs Banana Chips in Bandar Lampung already use the social media and internet to promote and market their product by using some internet features such as Instagram, WhatsApp, Facebook and any online shop. The reliability of the model can be rechecked by using the existing the sales difference data of SMEs Banana Chips 2012 and 2017 and the internet usage data of product promotion (Table 3).

No	SMEs Banana Chips	Sales Difference (in Kg)	Internet-based in Product Promotion
1	Jom-Jom	-9000	No
2	Keripik Royon	0	No

3	Cesylia	-1000	No
4	Keripik Rizka	-32850	No
5	Puri Jaya 1	-24000	No
6	Puri Jaya 2	-24000	No
7	Puri Jaya 3	-24000	No
8	Puri Jaya 4	-24000	No
9	Ali Baba	2400	No
Average Sales Difference		**-15161.111**	**No**

Table 3. The Sales Difference of 2012 and 2017 Without Using Internet in Product Promotion

Table 3 shows that those who do not use the internet to promote their product will have a big loss. It can be seen by the average sales difference of 2012 and 2017 that extremely decline about 15.161 kg. Meanwhile, the SMEs that conduct the internet-based product promotion have benefits in sales. It is shown on Table 4 that the average sales difference between 2012 and 2017 had increased about 3.967 kg.

No	SMEs Banana Chips	Sales Difference	Internet-based in Product Promotion
1	Keripik Siger	800	Yes
2	Keripik AHHAS	300	Yes
3	Oleh-Oleh Khas Lampung "Wisa"	-300	Yes
4	Keripik Nayla	2000	Yes
5	Saudagar	200	Yes
6	Arabar Shop	0	Yes
7	Keripik Wagiman	-10220	Yes
8	Askha Jaya 1	12000	Yes
9	Askha Jaya 2	12000	Yes
10	Askha Jaya 3	12000	Yes
11	Askha Jaya 4	12000	Yes
12	Sumber Rezeki	-3600	Yes
13	Keripik Yaya	14400	Yes
Average Sales Difference		**3967.6923**	**Yes**

Table 4. The Sales Difference of 2012 and 2017 With Using Internet in Product Promotion

The analysis shows disruptive technology has affected the promotion aspect while other variables have not been affected yet. The result of analysis lead to the formulation of SMEs development strategy. The strategy aims to strengthen the capacity of SMEs Banana Chips in facing the era of disruptive technology and increase the local and national competitiveness of Lampung Province. Here some strategies that can be considered in developing SMEs Banana Chips in Bandar Lampung:
1. Socialization and mentoring program on the development of marketing and sales aspects of SMEs banana chips by utilizing the online media, conducted by at least the government, private sectors and academics.
2. The cooperation between the government and bank in order to facilitates the online transaction needs of SMEs Banana Chips
3. The cooperation between the government and business sector that is professional in providing delivery service not only in the scope of local and national but also international market.

4. City Branding enhancement of Bandar Lampung by collaboration among governments, academics, business sectors in order to promote Banana Chips as popular and authentic product of Lampung.
5. The government facilitates academics in terms of research and development of innovative banana chips products both in terms of flavor and packaging innovation.

4. Conclusion

The shift of people lifestyle caused by the existence of disruptive technology has been forcing all sectors to develop and upgrade their performance by improving their innovation otherwise they will be left behind. In the context of developing SMEs Banana Chips in Bandar Lampung, the most seen variable of sales that affected by disruptive technology is internet-based product promotion while the other 5 variables had not been quite affected yet by the disruptive technology. In order to sustain the SMEs Banana Chips in Bandar Lampung, there are 5 (five) strategies to win the era of disruptive technology. The strategies are emphasizing in several aspects such as using online media in promoting and marketing product, stakeholder partnership in financial support and delivery services, strengthening the city branding of Bandar Lampung, and innovation in product and packaging. The strategies are designed so that there will not be a SME Banana Chips that loses at its own home.

5. Acknowledgement

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