The Effect of Market Attractiveness and Value Creation on the Performance of Fertilizer Companies in Indonesia

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The fertilizer companies in Indonesia have not shown a high performance, while the demand continues to grow. This condition was allegedly caused by issues related to the development of value creation and in adapting the attractiveness of the fertilizer market. Therefore, this research aims at examining the effect of market attractiveness and value creation on the performance of fertilizer companies in Indonesia. This research used a quantitative research approach. The unit of analysis was fertilizer producers in Indonesia, which registered with the Ministry of Agriculture. Observations were carried out using a cross-section/one shot in the time horizon, which was the year 2019. The observation unit was the management of fertilizer producer companies in Indonesia. The population is totalling 55 companies, and a census was carried out. The hypothesis testing was conducted using PLS (Partial Least Square). The results showed that market attractiveness and value creation have a significant effect on company performance. The most dominant dimension of value creation is the business domain, followed by business partners, and customer benefits. While the most dominant dimension of market attractiveness in driving company performance is market access, followed by market strength, and intensity of competition. The research's result has implications for the management of fertilizer companies in Indonesia that improving company performance rests on the development of value creation, especially in the aspect of the business domain, which is supported by the adaptation of market attractiveness especially in terms of market access.

Keywords: *Market attractiveness, Value creation, Company performance.*

Introduction

Urea fertilizer production fluctuated in the 2010-2018 period. PTPI fertilizer sales were divided into two segments, namely the subsidised and non-subsidised segments. PTPI's subsidised fertilizer sales performance increased from 2013 to 2018. However, the non-subsidised segment fluctuated from time to time. The performance of export sales even showed a weakening in line with fluctuations in the prices of fertilizer and ammonia commodities. The description indicated problems. According to Wheelen and Hunger (2015), company performance is related to sales, market share and profitability.

The aforementioned conditions are considered to be related to value creation. Sanchez et al. (2010) showed that producer organisation learning has a positive influence on customer value creation ability that directly enhances the business performance. In addition, Rodgers (2010) found that corporate value creation causes performance gaps. Breunig and Hydle (2011) revealed how performance in international organisations requires two different steps to measure short-term and long-term value creation.

Conceptually, Bowman and Ambrosini (2000) argue that value creation has a correlation with innovation to increase consumers benefits. Kotler and Keller (2012, p.79) explained that customers focus is caused by value creation, core competencies in business domains, and collaborative networks at business partners. Nevertheless, indications empirically were found such as the lack of effort to develop collaboration with business partners.

Other aspects that are thought to be related to problems in the performance of fertilizer companies are the aspect of adapting market attractiveness. Ju and Zhao (2009) found that the intensity of industrial competition positively moderates the influence of slacking organisations on performance. Best (2013) suggested that the measurement of market attractiveness are market forces, competitive intensity, and market access, while the results of the observations indicated that fertilizer companies in producing and marketing fertilizers had not been based on observations of market forces, such as the extent of the market coverage, the extent of the customer's purchasing power, and whether customers have characteristics as loyal customers.

The previous studies have not examined the relationship between market attractiveness, value creation, and company performance together, but only partially examined, and no one has examined the three variables in the fertilizer industry. This study examines these three variables partially and simultaneously on the fertilizer performance companies in Indonesia, as the novelty of this study. In addition, the dimensions and indicators used to measure each variable in this study are not exactly the same as previous studies. Thus, this research has high originality compared to previous studies.

Literature Review

Market Attractiveness

Walker, Mullins and Boyd (2011) revealed that the measuring factors of market attractiveness are customers' needs and behaviour, market size, market growth rate, and macro trend. Best (2013) suggested that the attractiveness of segments is based primarily on three important considerations, namely an assessment of market demand, competition intensity, and market access. According to Best (2013), market attractiveness can be measured by market forces, competitive intensity, and market access. According to Huser (2012), market attractiveness is a multidimensional phenomenon that includes market size, market growth, market potential/dynamics (prospective), and others such as distribution of small/medium goals (diversification), off-season distribution, length of stay, and price insensitivity. On the other hand, Hubbard and Beamish (2011) revealed that market attractiveness can be measured based on the condition of the company's competitors, customer demand, supporting and infrastructure conditions, and supplier conditions. Based on market attractiveness concept, market attractiveness in this research refers to the Best's (2013) description. Hence, it was measured by the dimensions of market strength, the intensity of competition, and market access.

Value Creation

Kotler and Keller (2016) developed the concept of holistic marketing. The holistic marketing dimensions relate to the business task of delivering customer value to an advantage. Marketers can succeed if they adjust the value delivery process and select, provide, and communicate superior value to the buyer. Kotler and Keller (2012) explained: "that customer value creation focuses on customers, core competencies in business domains, and collaborative networks with business partners". Hubbard and Beamish (2011) explained that "business strategies are related to value creation that results in customer value, namely the difference between what is sacrificed in costs and what is received in a number of benefits derived from the performance of a product or service received from the organisation". According to Bowman and Ambrosini (2000), "value creation is related to innovation that increases benefits for consumers; from the consumer's perspective, value creation is related to increasing value that can have an impact on increasing consumer loyalty". Based on the description of the concept, the value creation in this research is measured by the benefits for customers, business domains, and business partners.

Company Performance

The concept of performance is explained by Wheelen et al. (2015) as the end result of an activity. Performance is related to the objectives formulated in the strategies as part of the management process. Hassabelnaby, Hwang and Vonderembse (2012) "measured company performance by financial performance (Return on Assets/ROA) and nonfinancial performance (Quality)". Huang (2010) measure company performance through financial performance, i.e. ROA, while Fonseka et al. (2013) use accounting-based performance measure, and ROI. Based on the concepts and dimensions, the company performance variable in this research is measured by the dimensions of sales, profitability, and market share.

Hypothesis

Ju and Zhao (2009) found that the intensity of industrial competition positively moderates the influence of slacking organisations on performance. Mensah (2012) shows that company with limited access to market has a low sales performance. Breunig and Hydle (2011) reveal how performance in international organisations requires two different steps: one tool to measure short-term value creation related to organisational processes, and one tool to measure long-term value creation related to service work practices.

Based on the other research, the state of the art of this study is to produce a model that relies on the results of value creation and adaptation of market attractiveness in an effort to improve company performance in the fertilizer industry in Indonesia, which shows that the topic of this research has never been done by previous researchers. Thus this study has high originality.

H1: Market attractiveness affects company performance.
H2: Value creation affects company performance.
H3: Market attractiveness and value creation affect company performance simultaneously.

Methodology

Quantitative research is more systematic, planned, structured, and clear from the beginning to the end of the research. Observations were carried out using a cross-section/one shot in the time horizon, meaning that the information or data obtained was the result of research conducted at one time, namely in 2019.

According to Sekaran (2010, p. 132), the unit of analysis is the level of aggregation of the data collected during the subsequent data analysis stage. The units of analysis in this research were both organic and inorganic fertilizer companies. Thus, the population in this research

was all fertilizer producers totalling 55 companies. Based on this population, a census of all fertilizer producers in Indonesia was conducted. The observation units used as the respondents in this research were the managers or management of 55 fertilizer-producing companies in Indonesia. The PLS (Partial Least Square) was used for testing of hypotheses.

Result and Finding

Result of Model Analysis Using PLS
Evaluation of Measurement Model (Outer Model)

The measurement model in this research used the SmartPLS program. The outer model analysed the relationship between latent variables and indicators. Tests were carried out on external models including the followings:

- Convergent Validity: The value of convergent validity is the value of loading factor on the latent variable with its indicators. The expected value is > 0.7.
- Composite Reliability: The data have high reliability with the composite reliability > 0.7.
- Average Variance Extracted (AVE). The expected AVE value is > 0.5.

Table 1: Reliability

Construct	AVE	Composite Reliability	Cronbach's Alpha
Performance	0.504	0.854	0.794
Market attractiveness	0.558	0.902	0.880
Value creation	0529	0.854	0.802

Table 1 depicts the reliability test of variables. The values obtained were AVE > 0.5. Cronbach's Alpha > 0.7 and Composite Reliability > 0.7. Therefore, the research variables had good reliability.

Table 2: Convergent Validity Dimension-Indicator (1st order)

Indicator <- Dimension	Original Sample (O)	Standard Error (STERR)	T Statistics (|O/STERR|)	Conclusion
CP1 <- Sales	0.886	0.028	32.073	Valid
CP2 <- Sales	0.914	0.014	64.873	Valid
CP3 <- Profitability	0.803	0.048	16.701	Valid
CP4 <- Profitability	0.849	0.020	41.606	Valid
CP5 <- Market share	0.924	0.023	41.022	Valid
CP6 <- Market share	0.907	0.024	37.764	Valid
MA1 <- Market forces	0.762	0.035	21.817	Valid
MA2 <- Market forces	0.709	0.053	13.333	Valid
MA3 <- Market forces	0.613	0.074	8.280	Valid
MA4 <- Market forces	0.758	0.047	16.057	Valid
MA5 <- Intensity	0.654	0.055	11.837	Valid
MA6 <- Intensity	0.771	0.062	12.416	Valid
MA7 <- Intensity	0.864	0.024	36.257	Valid
MA8 <- Market Access	0.777	0.040	19.416	Valid
MA9 <- Market Access	0.638	0.078	8.191	Valid
MA10 <- Market Access	0.658	0.068	9.724	Valid
MA11 <- Market Access	0.717	0.041	17.357	Valid
VC1 <- Customer benefit	0.839	0.045	18.679	Valid
VC2 <- Customer benefit	0.848	0.031	27.037	Valid
VC3 <- Customer benefit	0.665	0.088	7.559	Valid
VC4 <- Business domain	0.811	0.055	14.741	Valid
VC5 <- Business domain	0.677	0.093	7.264	Valid
VC6 <- Business domain	0.608	0.118	5.161	Valid
VC7 <- Business Partner	0.920	0.021	43.335	Valid
VC8 <- Business Partner	0.930	0.017	54.576	Valid

The value of convergent validity is the value of the loading factor in the latent variable with its indicators. The values of loading factor as shown in Table 2 were > 0.5, meaning that the indicators were a valid measurement for latent variables in the first order.

Table 3: Convergent Validity of Latent Variables-Dimensions (2nd order)

	Original Sample (O)	Standard Error (STERR)	T Statistics (|O/STERR|)	Conclusion
Market Attractiveness -> Intensity	0.894	0.018	49.306	Valid
Market Attractiveness -> Market Access	0.965	0.006	162.779	Valid
Market Attractiveness ->Market Forces	0.954	0.009	105.485	Valid
Value Creation -> Business Partner	0.679	0.082	8.255	Valid
Value Creation -> Business Domain	0.911	0.020	45.789	Valid
Value Creation -> Customer Benefit	0.883	0.020	44.170	Valid
Performance -> Market Share	0.551	0.133	4.158	Valid
Performance -> Profitability	0.953	0.008	112.319	Valid
Performance -> Sales	0.890	0.023	38.195	Valid

The values of loading factor were > 0.5, meaning that the indicators were a valid measurement for latent variables in the second order.

Evaluation of Structural Model (Inner Model)

The evaluation of the inner model was tested in three ways, namely R^2, Q^2 and GoF. The value of R^2 amounted to 0.67 was categorised as strong, 0.33 as medium, and 0.19 as weak. The Q^2 value of 0.02 was categorised as minor, 0.15 as medium, and 0.35 as large, and they were only used for the endogenous construct with reflective indicator. The value of GoF is considered small if it is < 0.1, medium if it is 0.1-0.25, and large if it is > 0.38 (Tenenhaus, 2004).

Table 4: Inner Model Test

Variable	R^2	Q^2	GoF
Performance	0.541	0.434	0.487
Market Attractiveness		0.450	
Value Creation		0.431	

Table 4 shows that the R^2 value of company performance as endogenous variables was in the medium criteria (> 0.33), and Q^2 values were in the large criteria (> 0.35), and GoF was in the large

criteria (> 0.35). Therefore, it can be concluded that the research model was supported by the empirical condition so that the model was fit.

Based on the test results of R^2, Q^2 and GoF, the resulting model could be considered as robust. Therefore, hypothesis testing was able to be conducted.

Figure 1. Full PLS Model
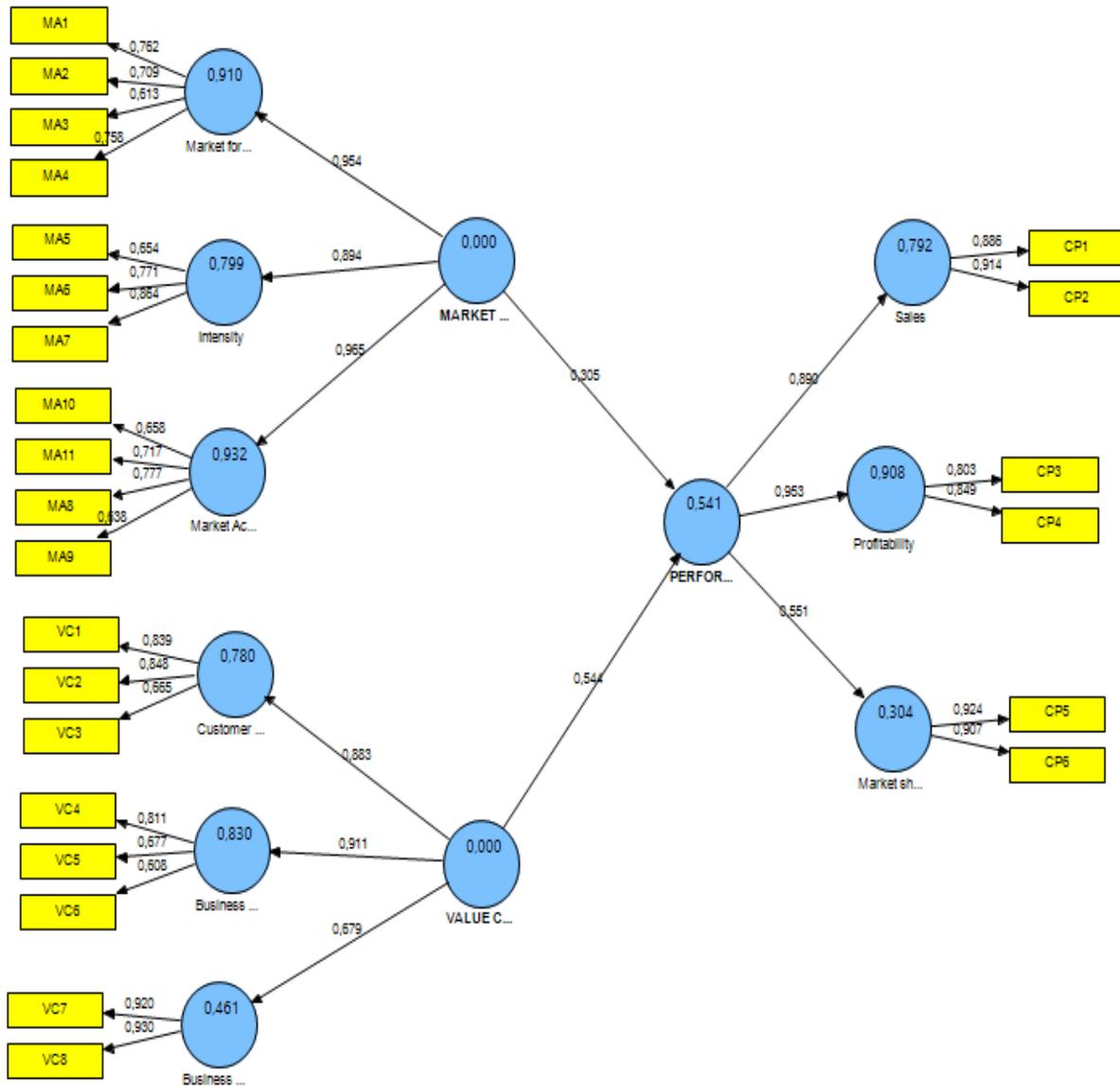
The structural model obtained is:

CP= 0.305MA+ 0.544VC + ζ_1

CP = company performance
MA = market attractiveness
VC = value creation
ζ_1 = Residual

Hypothesis Testing

Table 5 presents the results of hypothesis 1 and 2.

Table 5: Partial Testing of Hypothesis 1 and 2

Hypothesis		γ	SE (γ)	t	R^2	Conclusion
1	Market Attractiveness -> Performance	0.305	0.096	3.161*	0.169	Hypothesis was accepted
2	Value Creation -> Performance	0.544	0.085	6.382*	0.372	Hypothesis was accepted

*significant at α = 0.05 (t_{table}=1.68)

Partially, market attractiveness and value creation had a significant influence on company performance, in which value creation had a greater influence (R^2=37.2%).

Table 6 presents the results of hypothesis 3.

Table 6: Testing of Hypothesis 3

Hypothesis	R^2	F	Conclusion
Market Attractiveness and Value Creation -> Performance	0.541	30.667*	Hypothesis accepted

*significant at α=0.05 (F_{table}=3.175)

Table 5 depicts that there was the simultaneous influence of market attractiveness and value creation on company performance amounted to 54.1% with the degree of confidence of 95% (α=0.05), while the rest of 45.9% was affected by other factors not examined in this research.
Based on the results of the hypothesis testing, the research findings are described as follows.

Figure 2. Research Findings
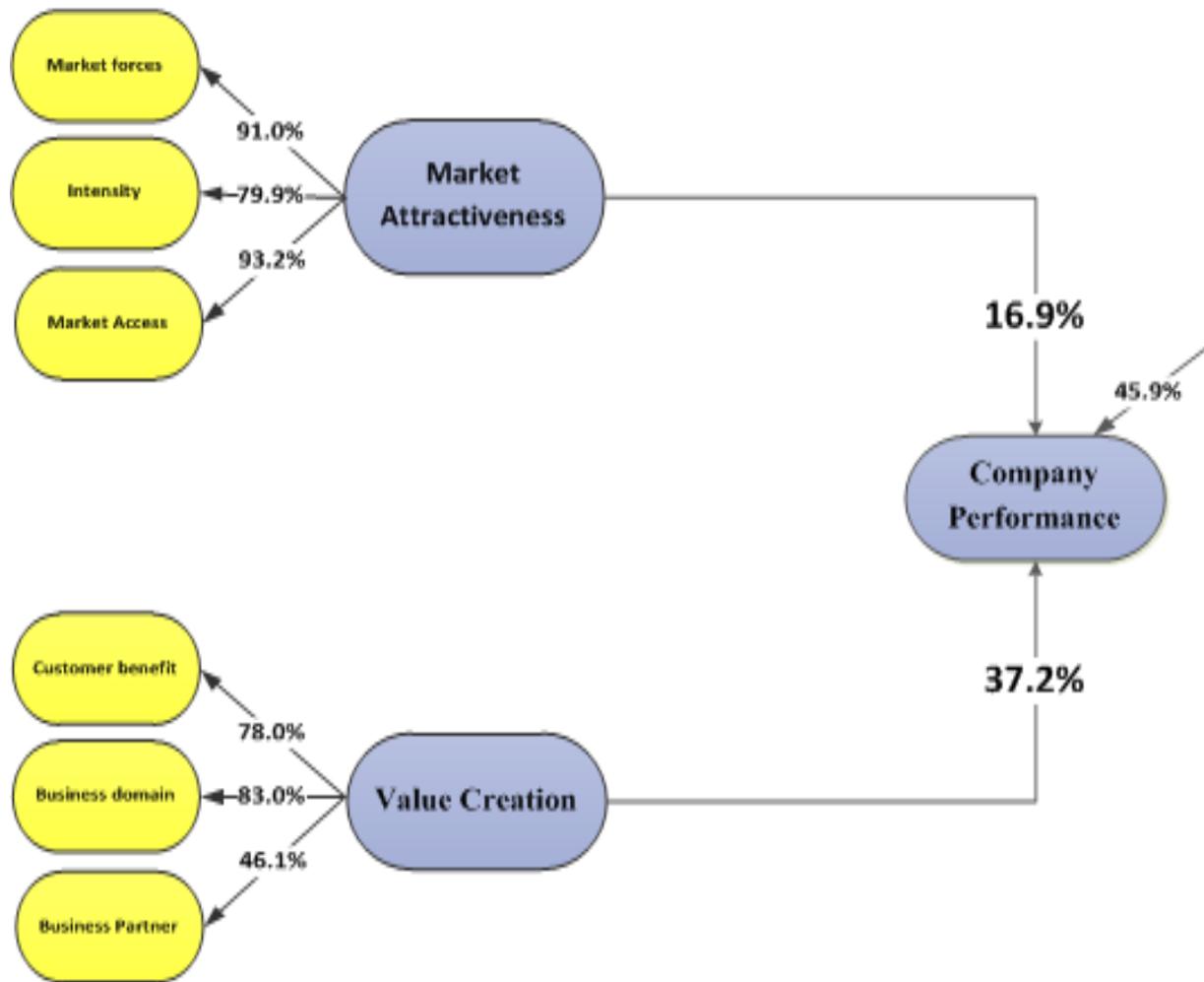
The hypothesis testing results revealed that market attractiveness and value creation had an effect on company performance. Thus, the hypothesis was accepted. The results of statistical tests showed that value creation had a greater influence than market attractiveness on the achievement of company performance in the fertilizer industry in Indonesia.

Value creation was formed by three dimensions, specifically customer benefits, business domains, and business partners. From these dimensions, the business domain had the highest influence (83%), followed by customer benefits (78%), and business partners (46.1%). Business domains were related to the creation of distinctive product characteristics compared to competitors, the creation of standards for punctuation and delays, and an increase in the company's understanding of product trends in the future. These aspects had the highest implications for improving the performance of fertilizer companies in Indonesia. The second dimension that supported the achievement of business performance was customer benefits relating to the creation of product variations, the creation of additional benefits, and the

improvement of quality standards. Meanwhile, the creation of business partners' value was related to the creation of partnerships with customers and business networks with competent parties. This result is in line with Bowman and Ambrosini (2000) stating that value creation increases benefits for consumers, which can have an impact on increasing consumer loyalty, hence it can enhance company performance.

Market attractiveness was formed by three dimensions, namely market forces, competitive intensity, and market access. From these dimensions, market access had the highest influence (93.2%), followed by market forces (91%), and competitive intensity (79.9%). These results illustrated that the achievement of company performance produced by companies was able to adapt market attractiveness, especially in terms of market access aspects. Adaptation of market access was mainly related to the condition of the customer, the extent to which the customer recognises the company's products, distribution channels, and the company's understanding of product trends. The introduction of market attractiveness also needed to be supported by the adaptation of market forces and competitive intensity. Market forces were related to market coverage, market growth, market forces, and market characteristics. Meanwhile, competitiveness is related to the growth in the number of competitors, price competition, and the quality of substitute products. These aspects support the companies' efforts to analyse the extent of attractiveness of the market in the fertilizer industry as an appropriate strategy for winning the competition so as to produce optimal company performance. These findings are in line with Best's theory (2013) that the attractiveness of segments is based primarily on three important considerations, namely an assessment of market demand, competition intensity, and market access.

The research results revealed that company performance was dominantly formed by value creation, which was supported by the adaptation of market attractiveness. The results of this research support the findings of Sanchez et al. (2010), which showed that producer organisation learning is a direct factor to the positive ability of customer value creation, that directly enhances business performance. In addition, Rodgers (2010) found that corporate value creation affects performance gaps. This study also supports Breunig and Hydle's finding (2011) that the performance of international organisations requires two different steps to measure short-term and long-term value creation related to organisational processes. The research results also support Ju and Zhao's finding (2009) that the intensity of industrial competition positively moderates the influence of slack organisations on performance and Mensah (2012) which showed that company with limited access to market has a low sales performance. The two studies show that market attractiveness is related to company performance in line with the result of this study.

Conclusion and Recommendation

The hypothesis testing results revealed that market attractiveness and value creation had an effect on company performance; thus, the hypothesis was accepted. The results of statistical tests showed that value creation had a greater influence than market attractiveness on the achievement of company performance in the fertilizer industry in Indonesia.

The results of this research have implications for the management of fertilizer companies in Indonesia that struggle to improve company performance are based on the development of value creation supported by the adaptation of market attractiveness. Value creation development is recommended to be prioritised on the business domain aspect, followed by development in the aspects of customer benefits and business partners. Business domains are related to the creation of distinctive product characteristics compared to competitors, the creation of standards for meeting on-time delivery and increasing the company's understanding of product trends in the future. Meanwhile, market attractiveness adaptations are prioritised on aspects of market access, followed by adaptation to aspects of the market forces, and competitive intensity. Adapting market access is emphasised in aspects of customer conditions, the extent to which customers recognise company products, distribution channels, and the company's understanding of product trends.

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