

Effect of Supplier's Market Power on Business Model Performance in B2B Market

Yafu Xu¹, Xiaokang Zhao¹ & Weihong Wang¹

¹School of Business and management, Donghua University, Shanghai, China

Correspondence: Yafu Xu, School of Business and management, Donghua University, Shanghai 200051, China

Received: December 18, 2017

Accepted: December 21, 2017

Online Published: December 21, 2017

doi:10.20849/abr.v2i3.258

URL: <https://doi.org/10.20849/abr.v2i3.258>

Abstract

Business-to-business (B2B) enterprises, as the foundation of the national economy, are facing real growth opportunities but in lack of good theoretical guidance on business model. Business model study is a new research hotspot in both business circles and academic domain. Focusing on Industrial market, this paper studies the effect of supplier's market power on business model performance. After interviewing experts and distributing questionnaires, the author discovered that the supplier's market power has a positive influence on business model performance. Through structural equation modelling (SEM), it is revealed that competition environment and market position are the key components of supplier's market power, and both components have positive effect on business model performance. At the same time, competition environment and market position also have positive effect on each other. The main contributions of this research are summarized as follows: Firstly, the introduction of competition environment and market position sheds new light on the research into market power in B2B market; Secondly, the proposed model of the supplier's market power on business model performance lays the basis for scientific measurement of market power and its effect on business model performance; Finally, this research provides a good reference for enterprises to update their business strategy and model at the right time when the market power changes.

Keywords: business model performance, market power, B2B

1. Introduction

“Competition today is not between products, it is between business models”, said by Peter Drucker, a master of management (Teece D. J. 2010), Business model is considered as a tool for enterprises to improve their performance and gain competitive advantage. As a new hotspot in management study, business model has attracted great attention from the academic domain. For example, Zott and Amit suggested that the business model, in addition to product and marketing strategy, contribute to the competitive edge of enterprises (Zott C., & Amit R.2008). Mitchell and Coles pointed out that a good business model makes it easier for enterprises to lead in competition and win new customers (Mitchell D., & Coles C. 2003). Baoliang Hu argued that the business model has a positive impact on enterprise performance, probing into business model, innovation and enterprise performance (Hu B. 2015). Wang Xiang thought that the business model not only contribute to the profitability of enterprises, but also to the growth of market value (Wang X. A., Li D. A., & Zhang X. (2010).

Despite the lack of a broad consensus on the business model definition and its performance evaluation, most scholars have recognized the positive effect of business model on enterprises performance. However, most studies on business model performance are still staying at the stage drawing conclusion from some successful business models, or finding the lesson from failure. Xu and Zhao (2016) pointed out that the market situation can moderate business model performance in industrial market, and identified supplier-customer strategic fit, product/service differentiation and supplier's market power as the three main elements to classify market situation (Xu Y., & Zhao X. (2016). On this basis, this paper attempts to further research the effect of supplier's market power on business model performance.

The industrial market, also known as the business-to-business (B2B) market, is the foundation of the national economy. The products from the market are manufactured for the purpose of reproduction rather than direct consumption (Philip. Kotler, Kotler, & Mei Qinghao. Marketing management 11th Ed.). Different to business-to-consumer (B2C) market, B2B market has much less of consumers and the suppliers normally keep quite close ties with customers. Thus, it is meaningful to explore the supplier's market power and its impact on

business model performance.

2. Theoretical Analysis and Research Hypotheses

Morris et al. argued that the key to business model performance lies in the internal fit among model elements, and the external fit between the elements and the environment (Morris M, Schindehutte M, & Allen J.,2005). So they proposed to evaluate business model performance by assessing the internal fit and external fit. Xu and Zhao claimed that business model performance depends on the match of business model type and market situation (Xu Y., & Zhao X. (2016), as shown in Figure 1.

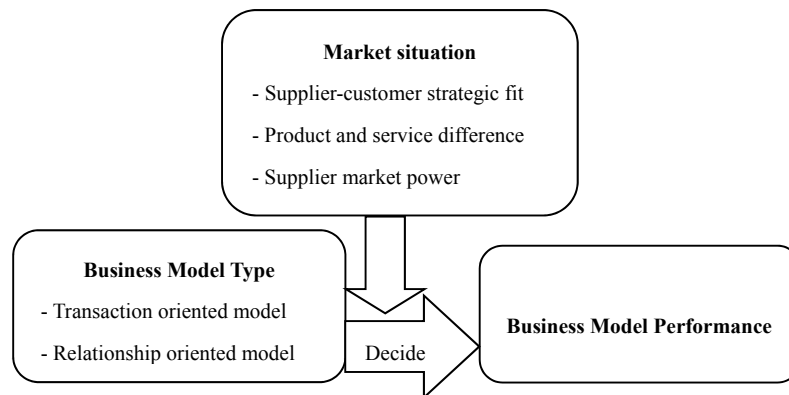


Figure 1. Influence of market situation on business model performance

2.1 Evaluation of Business Model Performance

2.1.1 Influence Mechanism of Business Model Performance

According to Amit and Zott, the most prominent features of business mode are novelty and efficiency, and the business model performance should be assessed based on the four key value drivers: efficiency, complementarities, lock-in and novelty. So the main method to evaluate business model performance is mainly from the four aspects of the assessment (Amit R., & Zott C., 2001).

In past years, the concept of value, including value creation, value transfer, value seeking and value chain, has been gradually incorporated into the definition of business model. Chesbrough believed that the core of business model performance is value, but the value should not be limited to customer value, but also include the value demands of various business partners (Chesbrough H., & Rosenbloom R. S. 2002). Wei Wei and Zhu Wuxiang indicated that a good business model must be good on value creation, value sharing and low-cost value distribution (Wei Wei, & Zhu Wuxiang, 2009). Chair pointed out four basic features of the business model: uniqueness, innovativeness, comprehensiveness and internal consistency (Chair M. H. M. M. M., & Shatalover A. 2013). Zhang developed a measurement model of typical business model and also raised the mechanism between business model and corporate performance which is a theoretical basis and operation tool (Zhang X., Hufei G. E., & Zhao Y. 2015). Xu and Zhao the potential value of the customers might be from volume increase, more new application of current products, or new introduction to other new customers (Xu Y., & Zhao X. 2016).

To sum up, even though there are still various opinions on business model definition, without a widely agreed standard definition, most of current studies agree on the positive effect of business model performance on enterprises performance.

2.1.2 Evaluation Method of Business Model Performance

The evaluation of business model performance is one of the key challenging topics on business model research. A proper business model supports enterprises on making right adjustments according to the actual situation. Yuan Lei pointed out that there are mainly two kinds of evaluation methods on business model performance: pre-evaluation and post-evaluation (Yuan L. 2007).

Pre-evaluation method has been studied by many scholars, such as Hamel, Gordijn et al., and Morris et al. (Morris M, Schindehutte M, & Allen J. 2000-1; Gordijn J, & Akkermans J M., 2003). As mentioned above, Morris et al. (2003) pointed out that the key to business model performance lies in the internal fit among model elements, and the external fit between the elements and the environment. So they proposed to evaluate business model performance by assessing the internal fit and external fit. The idea of Morris et al. has a far-reaching

influence on the subsequent studies on business model performance. Hamel looked profit as an important yardstick of business model performance, and identified four factors that determine a business model's value potential: efficiency, uniqueness, fit, profit booster, respectively. Afuah, Dubosson-Torbay and other scholars have had deep research into post-evaluation method. Afuah evaluated business model performance in three stages from the angle of profitability: Firstly, to evaluate the company profitability of the current business model; Secondly, to evaluate the company profit rate, market share and annual revenue growth; Thirdly, to evaluate all the elements of the business model, and evaluate them qualitatively into "low" and "high" levels (Afuah A, & Tucci C L., 2001). Relatively speaking, Afuah's evaluation methods are relatively systematic, which is one of the mature business model evaluation systems. But the disadvantage is that it is too superficial to just simply the profit rate, market share and annual income growth rate as the enterprise profit forecast factors, without further research for the root causes of corporate profits. In addition, this evaluation method is to evaluate the performance of the business model after the implementation so it is not helpful for business model selection in advance.

Yuan pointed out that Pre evaluation and post evaluation are different in the research perspective and research focus, but these two are not contradictory, but complementary: The former is a static evaluation, more horizontal evaluation elements of the business model; the latter is a dynamic evaluation, more longitudinal evaluation implementation of business model (Yuan L., 2007). Pre-evaluation helps to forecast the performance of business model and avoids the risk of adopting a wrong one. But, pre-evaluation is purely theoretical, which makes it difficult to build up a practical and operational evaluation system. On the contrary, post-evaluation method is relatively practical after referring to a massive amount of company operation data, however it is difficult to well link up the operation data to model performance. Moreover, post-evaluation method cannot avoid the risk of adopting a wrong model, because it happens after the implementation of the business model. In a word, both pre-evaluation and post-evaluation methods have their own defects. This calls for a more scientific and practical evaluation method for business model performance.

2.2 Market Power of Supplier

Market power is a common phenomenon of market failure. It refers to the ability of a small group of an economic activist or an economic activist to inappropriately affect the market price. Market power can make the market ineffective to allocate resources, resulting in the inefficiency of the market, as it deviates the price and quantity from the balance of supply and demand. Xu and Zhao claimed that market power is decided by two factors, competition environment and market position (Xu Y., & Zhao X., 2016).

2.2.1 Competition Environment

Potter's five force model is a widely used too for competition analysis (Figure 2). There are five competitive factors, current competitors, potential competitors, potential alternative products, bargaining power of suppliers and bargaining power of buyers.

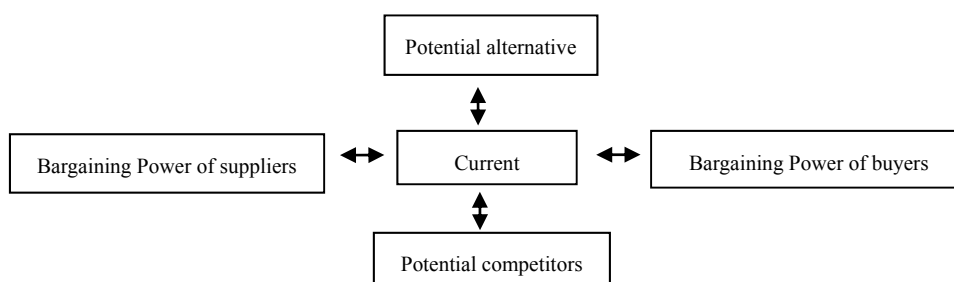


Figure 2. Potter's five force model

Among the five competitive factors, current competitors are often the most significant. Only when the enterprise has a greater comparative advantage than the competitors can its strategy and business model be successful. At any time, if a new company can easily enter a particular industry, the competition will increase. However, there are certain barriers to entry in every industry. Strategic and business model makers should identify potential entrants in the market, monitor the actions of potential entrants, and respond decisively when necessary. Potential alternative products are enhanced by competitive pressures as the price of alternative products drops and consumer transfer costs decrease. The competitive power of alternative products can be measured by

analyzing the market share of alternative products, the increase of production capacity and market penetration. The bargaining power of the supplier affects the degree of competition in the industry, especially when there are many suppliers in the industry, or only a few good alternatives. If the buyer concentrates or buys a large amount, its bargaining power will be one of the main factors that affect the degree of industry competition.

In good market environment, the supplier has more power during the cooperation with customers, and the customers do not have a lot of alternative products. The supplier has much more bargaining power than customers. So the suppliers can take good use of this competition environment, to create, deliver and gain more value with proper business model.

Therefore, it is hypothesized that competition environment has positive impact on business model performance (Hypothesis 1).

2.2.2 Market Position

Industrial influence power, market share and brand value stand for the market position. Industrial influence power means the effect of the supplier's action on the other players in the same industry. More influence power will bring additional benefit for the supplier. Market share is the percentage in the whole target market. The product with higher market share is more attractive to customers in a better market position. At the same time, the company with higher market share will also have cost advantage than the competitor because of more production, according to scale economy principle. Brand is one of the main intangible assets of the company, which is one of the key factor enhance supplier's market position. The customers prefer to products with good brand.

Through the above analysis, it is hypothesized that market position has positive impact on business model performance (Hypothesis 2).

2.3 Effect of Supplier's Market Power on Business Model Performance

Based on the above analysis, the supplier's market power was divided into two dimensions: competition environment and market position. Those two dimensions affect each other. Business model performance was divided into five dimensions: financial performance, management ability, reform and innovation, system optimization and customer satisfaction. The impact of supplier's market power on business model performance is illustrated in Figure 3.

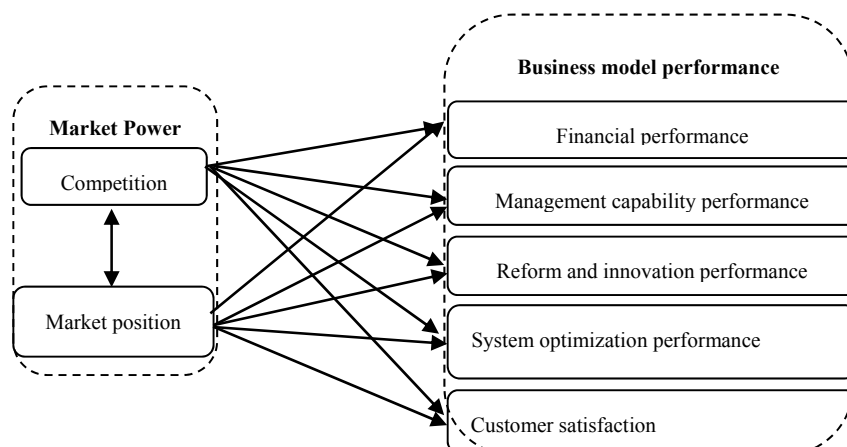


Figure 3. Impact of supplier's market power on business model performance

Therefore, a general hypothesis (H_0) was made: the supplier's market power has a positive impact on business model performance.

3. Research Design

3.1 Sample and Data Collection

Questionnaire, experiment, quasi-experiment, and secondary data qualitative analysis are the main evaluation methods (Chen Xiaoping, Xu Shuying, & Fan Jingli, 2012). There is no ready-made secondary data available for market power and business model performance evaluation, so questionnaire survey was conducted to collect first-hand data directly from the business-to-business (B2B) enterprises for the evaluation of market power and

business model performance. Because of its less interference with the respondents, it is easy to get support from enterprises and employees. However, since the investigators cannot be processed experimentally, the researchers need a larger sample to ensure that the independent variables have sufficient variability.

Sample size plays an important role in empirical research. Gay (1992) pointed out that the sample size should be determined by the type of research, and the minimum sample size should be 30 for the study on relevance between different variables (Bartlett J.E., Kotlik J.W. & Higgins C.C., 2001). Bartlett et al. suggested that the quantity ratio of samples to independent variables in regression analysis should more than 5:1, or, ideally, 10:1, and the sample size must be not less than 100 in factor analysis. Qiu Zhenghao revealed that the sample size should be at least 50 more than the number of parameters to be estimated in structural equation modelling (SEM) (Qiu Zhenghao, 2002). Total 481 valid samples were collected in this research, which satisfies the requirements of the analysis.

In order to ensure the quality of the scale, a small sample survey was carried before a formal questionnaire survey, in two steps including a pre-test survey and a pilot test survey. The questionnaire was prepared on questionnaire Stars online survey platform (<https://www.wjx.cn/>), and saved in the formats of Word file, web file, and WeChat file. The three steps of survey are detailed as below. The pre-test survey mainly verified the reliability of the initial questionnaire, so the author only invited total 24 interviewees who are easy to follow up the survey, to express their real feelings on the questions. The pilot test survey validated the reliability of the scale and the clarity of the questions. Total 55 valid questionnaires were collected in this step. The formal final questionnaire survey was conducted on the Internet, email and WeChat. Total 481 valid questionnaires were collected in this step.

3.1.1 Development of Measurement Tool

Since there is no ready-made scale for market power, a scale was developed through following procedure: literature review, interview, evaluation and modification of the initial questionnaire. The Likert scale, named after its inventor Rensis Likert, is a popular measurement for attitudes, objects, individuals or time (R. Likert, 1970). The scale often contains five or seven levels. The five-level Likert scale is more reliable than seven-level counterpart, because too many levels will wear out the patience of interviewees. Thus, the five-level Likert scale was adopted in the scale design in this research, except for individual and enterprise information.

3.1.2 Measurement of Variables

(1) Measurement of independent variables:

The supplier's market power describes the market situation and position of the supplier, which show opportunity and threat for company development. As mentioned above, the supplier's market power should be measured from two aspects: competition environment and market position. The first aspect was depicted by 5 variables based on Potter's five force model, while the second aspect was demonstrated by 3 variables including industrial influence power, market share and brand value. The whole index system is shown in Table 1.

Table 1. Market power measurement index system

Dimension	No.	Index name	Description
Competition environment	S1	Current competitors	Existing competitors in the industry
	S2	Potential competitors	Potential new competitor into the industry
	S3	Potential alternative products	Potential competitor products
	S4	Bargaining Power of buyers	Bargaining Power of buyers
	S5	Bargaining Power of suppliers	Bargaining Power of suppliers
Market position	S6	Industrial influence power	Influence power on other players in the industry
	S7	Market Share	Share of the total market
	S8	Brand value	Brand Value

(2) Measurement of dependent variables

The business model performance was evaluated by the comprehensive evaluation method, harmonizing both Pre

evaluation and post evaluation. In order to overcome the disadvantage of pre-evaluation and post-evaluation methods, this comprehensive evaluation method takes account of the pre-commercial model, prediction of profitability and adaptability, and the changes resulted from the implementation of the business model. In light of post-evaluation system (Zott, 2008; Hu, 2015) and the pre-evaluation system (Sun, 2011), the author created the comprehensive evaluation model for business model performance as shown in Table 2.

Table 2. Comprehensive evaluation model for business model performance

Dimension	No.	Index	Description
Financial performance	P17	Net profit growth	Net profit growth, compared to main competitors
	P19	Sales growth	Sales growth, compared to main competitors
	P15	Concentration of competitiveness	The core competence of the enterprise is concentrated in the most advantageous part
	P18	Return on assets	Asset yields in past two years, compared to major competitors
	P16	Resource consistent profit	To make the company's competitive advantage into a good performance of the Company, the strategic resources of the enterprise are consistent with the source of the company's economic profits,
	P1	Positioning accurate	Firms accurately identify their niche in the business ecosystem
	P20	Market share	Compared with the major competitors, we have a higher market share in the past two years.
Management ability	P13	Brand adaptation	As the company's role in the business ecosystem changes, the company's own brand image can adapt to the ecological environment
	P7	Business differentiation	The company adjusts its business model to other competitors through constant adjustments
	P10	Scientific allocation of resources	Is it based on the limited resources to allocate all kinds of resources scientifically and maximize the enterprise value with the least input business model?
	P14	Practical significance of products	The value that a company can offer to its customers through its products and services has practical implications for the customer.
Reform and innovation	P6	Strong contact with customers	The links established between an enterprise and its consumer group are firm
	P3	Adapt to customer changes	Able to adapt to changes in the customer base
	P4	Synchronization with technology	Keep pace with technological change
	P2	Adjustment due to change	Enterprises must make rapid adjustments because of changes, and grasp the direction and opportunities in change
Customer satisfaction	P9	Supply meets customers	Supply chain meets customer's needs
	P8	Effective implementation	Execute its business model quickly and effectively
system optimization	P11	Multiple sources of income	Create wealth through a variety of income streams
	P5	High degree of electronic	The degree of electronization of all business activities undertaken by enterprises
	P12	Integrated partner	The ability to integrate a large number of partners with effective resource integration constitutes a fast, reliable and convenient network

3.2 Reliability and Validity Analysis

Two scales are involved in this research, namely the scale of market power and the scale of business model performance. The former one was created from scratch, while the latter was modified from few existing scales. In order to ensure the quality of the two scales, a pre-test was carried out to check the construct validity, logic consistency, discrimination effect, aggregation degree and overall reliability of the initial scales (Luo Sheng Qiang, 2014). Scale development requires repeated tests, especially for the reliability and validity of scales. Any increase or deletion of items in a scale based solely on statistical results may lead to errors. The scale modification, question design and item setting were made possible with the generous support from a team of 6 experienced experts on business model.

The Cronbach's alpha is one of the commonly used tools for reliability test, created by L.J. Cronbach. However, the alpha value for high reliability is still under debate. Scholar Nunnally (1978) suggested 0.70 as the lowest acceptable score. DeVellis (1991) debated that the alpha value below 0.60~0.65 is unacceptable, barely acceptable in 0.65~0.70, quite good in 0.70~0.80, and excellent in 0.80~0.90 (Wu Minglong, 2010).

In this research, SPSS 21.0 was used to analyze the reliability of the collected data, and the reliability of the scales was determined based on the alpha value. In case an item has a higher alpha value than the whole scale, it should be deleted to improve the overall alpha value of the scale. Of course, this purely statistical rule should be supported by further analysis result, which could be discussed with related experts and scholars. If the deletion is truly necessary, the item should be removed. This analysis step might be repeated for several times in the descending order of alpha value until the scale has a sufficiently good reliability.

The validity was classified into three parts, content validity, criterion-related validity and construct validity (Luo Sheng Qiang, 2014). Both market power scale and business model scale were of high content validity thanks to the thorough literature review and professional opinions from scholars and experts. Especially, the scale of business model performance was modified from few existing mature scales, which further guaranteed its content validity.

The construct validity was tested by the common factor analysis (CFA) and the principal component analysis (PCA). The factor analysis is more applicable when Kaiser-Meyer-Olkin (KMO) is high, the higher the better, a measure of sampling adequacy the upper limit of 1. KMO is positively correlated with number of common factors, and negatively with the net correlation between variables. Just as Kaiser (1974) pointed out, the validity is extremely high with KMO in 0.8~1, high with KMO in 0.7~0.8, acceptable level with KMO in 0.6~0.7, low level with KMO in 0.5~0.6, and extremely low level with KMO in 0~0.5.

The chi-square (CMIN) value and the p-value in Bartlett's test were mainly used to determine whether the net correlation matrix is a unit one. When the p-value is less than 0.05, the matrix is a unit matrix and it represents the existence of a common factor in the population, which make it possible for the factor analysis.

SPSS 21.0 was used to analyze the validity of the collected data. The content validity of the scales had been improved based on the discussion with experts, and the construct validity of the scales were measured via the PCA and Bartlett's test.

4. Data Analysis and Results

4.1 Reliability and Validity Analysis

4.1.1 Development of Measurement Tool

(1) The scale of market power

Through reliability test, validity analysis, and further discussion with related experts, one variable was removed. At the same time, the description of S6 was modified. And after then, the final alpha value of the scale reached 0.880, indicating that the samples are very reliable for further analysis. The reliability of the scale is desirable, because the alpha value of no variable exceeded 0.88 after item deletion. Due to the limited space, the measured results are omitted here.

(2) The scale of business model performance

After the adjustment through reliability, validity analyses and followed discussion with related experts, the final alpha value of the scale stood at 0.907, indicating that the samples are very reliable. P20 market share is the only one variable whose alpha value (0.908) slightly surpassed 0.907 after item deletion. In the end, this variable was retained, because it is one of the key indicators of model performance. Thus, the scale also has a desirable reliability. Due to the limited space, the measured results are omitted here.

4.1.2 Validity Test

(1) The scale of market power:

The KMO value (0.866) was higher than 0.7, which signifies the suitability of factor analysis. The Sig. value (0) was less than 0.05, indicating that the scale has already passed the Bartlett's test. The total cumulative variance (68.040%) of those 2 extracted factors was higher than 60%. The rotation component matrix of the scale was established according to the maximum variance orthogonal factor extraction (Table 3).

Table 3. Rotation component matrix of market power

	Factors extracted	
	Competition environment	Market position
S1 Current competitors	.854	
S2 Potential competitors	.835	
S3 Potential alternative products	.732	
S4 Bargaining Power of buyers	.601	
S5 Bargaining Power of suppliers	.450	
S6 Industrial influence power		.676
S7 Market Share		.748
S8 Brand value		.866
Characteristic root value	2.739	2.704
Variance explained rate (%)	34.242	33.797
Cumulative variance explained rate (%)	34.242	68.040
KMO value		.866
Bartlett Sphericity test		1894.325
df		28
Sig.		0.000
Extraction method: principal component.		
Rotation method: orthogonal rotation method with Kaiser normalization.		
a. The rotation converges after the 3 iteration.		

Note: The load values less than 0.4 are ignored in this table.

(2) The scale of business model performance

The KMO value (0.978) was higher than 0.7, which signifies the suitability of factor analysis. The Sig. value (0) was less than 0.05, indicating that the scale has already passed the Bartlett's test. The cumulative variance (60.886%) of those 5 extracted factors was greater than 60%. The rotation component matrix of the scale was established according to the maximum variance orthogonal factor extraction (Table 4).

Table 4. Rotation component matrix of business model performance

No.		Factors extracted				
		Financial performance	Management ability	Reform and innovation	system optimization	Satisfy Customer
P17	Net profit growth	0.786				
P19	Sales growth	0.65				
P20	Market share	0.626				
P15	Concentration of	0.605				

	competitiveness				
P18	Return on assets	0.602			
P1	Positioning accurate	0.569			
P16	Resource profit consistent	0.537			
P7	Business differentiation		0.759		
P13	Brand adaptation		0.723		
P10	Scientific allocation of resources		0.657		
P8	effective implementation		0.51		
P6	Strong contact with customers			0.785	
P3	Adapt to customer changes			0.765	
P2	Adjustment due to change			0.562	
P4	Synchronization with technology			0.531	
P11	Multiple sources of income				0.847
P5	High degree of electronic				0.636
P12	Integrated partner				0.446
P9	Supply meets customers				0.685
P14	Practical significance of products		0.416	0.427	0.452
<hr/>					
	Characteristic root value	3.332	2.84	2.834	1.732
	Variance explained rate (%)	16.66	14.198	14.168	8.658
	Cumulative variance explained rate (%)	16.66	30.858	45.026	53.684
<hr/>					
	KMO value		0.907		
	Bartlett Sphericity test		3763.709		
	df		190		
	Sig.		0		
	Extraction method: principal component.				
	Rotation method: orthogonal rotation method with Kaiser normalization.				
	a. The rotation converges after the 7 iteration.				

Note: The load values less than 0.4 are ignored in this table

Source:

4.2 Result of SEM

To validate the hypotheses, the sample data were tested by the Structural equation model (SEM) on Amos 21.0. The SEM and the path coefficients are shown in Figure 4.

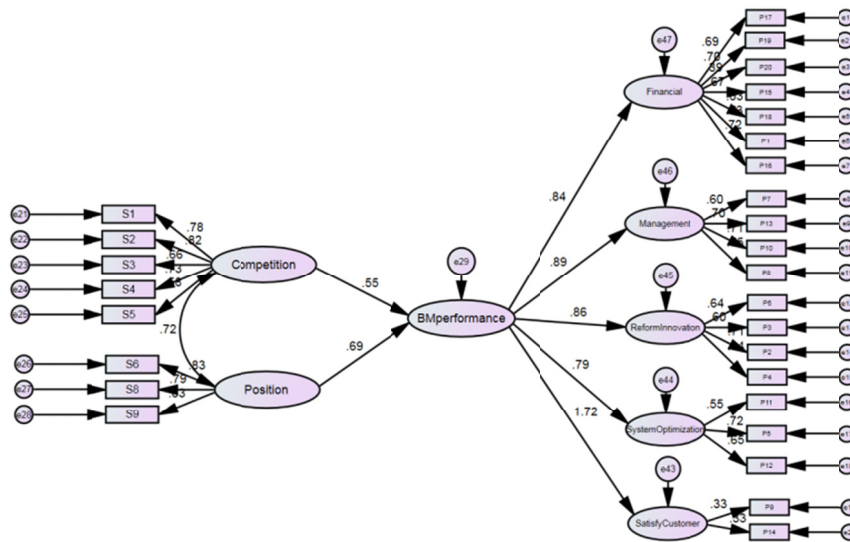


Figure 4. SEM of the effect of supplier’s market power on business model performance

The fitness of the hypothetical model was measured by the absolute adaptation statistic in the SEM,. The hypothesis fits well with the observed data when CMIN is 0, and does not fit well with the observed data when CMIN is big significant. Then, the ratio of CMIN to the degree of freedom (CMIN/DF) was used to further check the fitness of the model. The value of CMIN/DF is negatively correlated with the model fitness. In general, when CMIN/DF is in 1~2, the model has good fitting; when CMIN/DF is less than 1, the model is over-fitted and has a unique sample; if CMIN/DF is higher than 2 or 3 (or 5 if the requirement is not so stringent), the model has bad fitting and it is unable to reflect the observed data, so it has to be improved. In addition, MR, GFI, AGFI, PGFI, RMSEA and other indices were also introduced to further measure the fitness of the model. Through the SEM analysis, the model was accepted because all the indices are in line with the requirements. For instance, p (0.061) is more than 0.05, CMIN/DF (3.076) is less than 5, RMSEA (0.066) is less than 0.08, to name but a few.

Table 5. SEM results

Statistical test quantity	χ^2 (CMIN)	DF	P	CMIN/DF	RMR	GFI	AGFI	PGFI	RMSEA
Recommended value	The smaller the better		> 0.05	< 5	<0.05	> 0.9	> 0.9	> 0.5	<0.08
Fitness test results	1052	342	0.061	3.076	0.034	0.916	0.911	0.729	0.066

4.3 Result Analysis

4.3.1 Competition Environment Has a Positive Impact on Business Model Performance

According to the SEM results in Table 4, the path coefficient of the effect of competition environment on business model performance is 0.55, indicating that competition environment has strong positive impact on business model performance. In other words, the increase in competition environment is bound to improve the business model performance, and the inverse is also true. The empirical result echoes with the hypothesis (H₁) that competition environment has a positive impact on business model performance.

4.3.2 Market Position Has a Positive Impact on Business Model Performance

The path coefficient of the market position on business model performance is 0.69, indicating that market position has strong positive impact on business model performance. In other words, the increase in market position is bound to improve the business model performance, and the inverse is also true. The empirical result echoes with the hypothesis (H₂) that market position has a positive impact on business model performance.

4.3.3 Competition Environment and Market Position Constitute Market Power and Both Components Affect Each Other

Competition environment and market position constitute market power, and the path coefficient between both components is 0.83, indicating that competition environment has strong positive impact on market position. In other words, the increase in competition environment is bound to improve the market position, and the inverse is also true. The empirical result echoes with the hypothesis (H_0) that market power has a positive impact on business model performance.

5. Conclusions

Based on 481 valid questionnaires on industrial market, this paper discovers that supplier's market power has a positive impact on business model performance. Competition environment and market position constitute market power, and both components have positive influence on each other. Higher market power means the supplier is in a better competition environment and has more market power. In this case, the supplier can take good use of this good competition environment and its own market power to create, deliver and obtain more value during the businesses. That is to say the performance of its business model will be better. This research has significant practical and theoretical implications. Practically, the research provides a good reference for enterprises to identify the market environment and its market position, and then update their business strategy and business model accordingly at the right time. Theoretically, the finding makes up for the defects in existing research into business model and industrial market. Other contributions include the introduction of market power into the research on business model study in industrial market, and the modeling of the market power on business model performance.

As stated above, this research discloses the impact of market power on business model performance. However, market power is only one of the three dimensions of market situation. The other two dimensions are product/service differentiation and Supplier-customer strategic fit. In future research, the author will probe into the effect of those two dimensions on business model performance.

References

- Afuah A., & Tucci C L. (2001). *Internet Business Models and Strategies: Text and Cases*[M]. McGraw-Hill/Irwin,
- Amit R., & Zott C. (2001). Value Creation in E-Business. *Strategic Management Journal*, 22(6), 493-520. <https://doi.org/10.1002/smj.187>
- Bartelett J.E., Kotrlik J.W., & Higgins C.C. (2001). Organizational research: determin appropriate same size in survey research. *Information technology[J]. Learning and performance journal*, Spain, 43-50.
- Chair M. H. M. M. M., & Shatalover A. (2013). The Business Model and Firm Performance: The Case of Russian Food Service Ventures. *Journal of Small Business Management*, 51(1), 46-65. <https://doi.org/10.1111/j.1540-627X.2012.00377.x>
- Chen Xiaoping, Xu Shuying, & Fan Jingli. (2012). *Empirical method of organization and management (2nd Ed.)* [M]. Beijing: Peking University press.
- Chesbrough H., & Rosenbloom R. S. (2002). The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin - off companies. *Social Science Electronic Publishing*, 11(3), 529-555. <https://doi.org/10.1093/icc/11.3.529>
- Gordijn J., & Akkermans J. M. (2003). Value-based requirements engineering: exploring innovative e-commerce ideas[J]. *Requirements Engineering*, 8(2),114-134. <https://doi.org/10.1007/s00766-003-0169-x>
- Hu B. (2015). Management S O, University H D. Business models, innovation ambidexterity and firm performance. *Science Research Management*, 36(11), 29-36.
- Luo Sheng Qiang. (2014) *The method of questionnaire investigation of management science* [M]. Chongqing University press.
- Mitchell D., & Coles C. (2003). The ultimate competitive advantage of continuing business model innovation. *Journal of Business Strategy*, 24(5), 15-21. <https://doi.org/10.1108/02756660310504924>
- Morris M, Schindehutte M, & Allen J. (2005). The entrepreneur's business model: toward a unified perspective[J]. *Journal of Business Research*, 58(6), 726-735. <https://doi.org/10.1016/j.jbusres.2003.11.001>
- Philip. Kotler, Kotler, & Mei Qinghao. (2003). *Marketing management (11th Ed.)* [M]. Shanghai: Shanghai people's publishing house.

- Qiu Zhenghao. (2002). *Structural equation modeling: theory, technology and application of [M]*. LISREL double page Pearson Education Limited (Taiwan),
- R. Likert, (1970). A Technique for the measurement of attitudes in *Attitude Measurement*, ed. Gene F. Summers (Chicago: Rand McNally), pp. 149-158.
- Teece D. J. (2010). Business Models, Business Strategy and Innovation. *Long Range Planning*, 43(2-3), 172-194. <https://doi.org/10.1016/j.lrp.2009.07.003>
- Wang X. A., Li D. A., & Zhang X. (2010). Are Business Models Drivers of Inter-firm Performance Difference?:An Empirical Study of Chinese Non-ferrous Metals Public Companies[J]. *Social Sciences in Nanjing*, 5, 20-26.
- Wei Wei, & Zhu Wuxiang. (2009). *Discovering Business Model [M]*. Beijing: China Machine Press.
- Wu Minglong. (2010). *Practice of statistical analysis of questionnaires [M]*. Chongqing University press.
- Xu Y., & Zhao X. (2016). B2B Customer Value Evaluation System Based Topsis with the Integrated Weight by AHP and Entropy. *International Information and Engineering Technology Association*, 3(1), 16-23.
- Xu Y., & Zhao X. (2016). Effect of Supplier-customer Strategic Fit on Business Model Performance in Industrial Market. *C+CA: Progress in Engineering and Science*, 42(9), 4062-4069.
- Yuan L. (2007). Reconstruction of Business Model Theory System, *China Industrial Economy*, 28(6), 70-79.
- Zhang X., Hufei G. E., & Zhao Y. (2015). The Scale Development of Typical Business Model's Characteristics and Validation Studies of Its Validity. *Science of Science & Management of S & T*, 3, 56-66.
- Zott C., & Amit R. (2009). Business Model Design: An Activity System Perspective. *Long Range Planning*, 43(2), 216-226.
- Zott C., & Amit R.(2008). The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal*, 29(1), 1-26.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).