

Research on Value Creativity of Taiwan's Small and Medium-sized Enterprises

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Abstract

This research probes into the execution of small and medium-sized enterprises' value creativities by a difference analysis with different classifications, different capital, different turnover, different employees, and different established years. This study develop a questionnaire about value creativity with five dimensions and thirty-five items according to "Valuation" by McKinsey and Company, Inc. and Copeland et al., such as: "Aspiration and target," "Portfolio management," "Organization design," "Process management," and "Business and individual performance management." The results are as follows: (1) Most small and medium-sized enterprises (SMEs) have executed value creativities; (2) There is a difference in the execution of value creativities between the livelihood industry and the chemical industry; the execution of value creativities by livelihood industry is better than the chemical industry; (3) For value creativities of the execution of different capital and turnover for SMEs, bigger entities are better than smaller ones; (4) For the value creativities of the execution of different numbers of staff in SMEs, those with more staff are better than those with fewer staff; (5) For the value creativities of the execution of different established years for SMEs, those established longer are better than those established shorter.

Key Words: Small and Medium-sized Enterprises, Value Creativities

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1. Introduction

The small and medium-sized enterprises (SMEs) have influence Taiwan's miracle economy significantly in the past 50 years. Wang and Yu (2000) consider that SMEs have a manageability attitude that cannot be lacking in an economy like Taiwan, and in the course of economic development it has indeed played an important role. Wu *et al.* (2003) present with vigor that Taiwan's economy is mainly made up of SMEs. The SMEs are an important part of the island's economic, such as in total production value, sales amount, employment population, and enterprise numbers. According to an industrial and commercial general survey by the Ministry of Economic Affairs in Taiwan, the production amount of SMEs is 38.5% of large enterprises; the sales amount of them is about 30% of all enterprises; the employment population of them is 77.86% of all enterprises; and the enterprise number of them is 97.72% of all enterprises. Therefore, one surely knows that SMEs are an indispensable important turnkey in Taiwan' economy. They are not only the main body of the island's economic system in quantity, but also offer a large number of employment opportunities that help maintain a stable economic. Different from the large enterprises, the development of SMEs needs a large amount of funding support and shareholders play an important role as they determine whether to reinvest or not by the results of the value created by the company. Huang (1998) considers that the influences of SMEs are mainly divided into three areas: (1) the economy prediction in the future (in the market); (2) the specific reason of the property (the environmental factor of the industry), and (3) the specific reason of the SMEs (the results of the relevant performance index). However, SMEs should be managed aggressively in case there is a shortage of funding and value creativity must become a key element of such firms.

The past literature on business value has generally researched it from the point of financial management and customer relationship management (CRM). The value management of financial management refers to the method of business valuation about financial ratios, balance assessment, discounted cash flow (DCF), economic value-added (EVA), balanced scorecard (BSC), etc. Despite these methods, researchers should be able to measure the business value of current economical activities by public financial information. However, scholars in the past measuring business value focused on different assessment indices. It is rare to find a relevant topic about the execution degree of value creativity within SME. Hence, this paper's purpose is to initiate a motivation on the execution of SMEs' value creativity. The book "Valuation" mentions value creativity, including the idea of operator-owned and trending for management's aspiration and targeting business operations to maximize business value as brought up by Copeland *et al.* (2000) and McKinsey and Company, Inc. Through aspiration and target management, a business can implement portfolio management, organization design, process management (value drivers), and business and individual performance

management. A serial of value creativities can help achieve a return on equity that all businesses require. Value creativity is an important factor to maintain business operations. As such, the purpose of this research on value creativity, as mentioned by McKinsey and Company, Inc., is as follows: (1) Study the execution of value creativities within SMEs; (2) According to the background information of SMEs, study the difference analysis of value creativities; (3) Conclude with the results of the execution of value creativities in order to offer helpful recommendations for SMEs as decision-making references for operation policy.

2. Literature Review

2.1 Definitions of SMEs

All developed or developing countries of the world have many different kinds of enterprises. In terms of types, one can define them according to size, hiring numbers, differentiation in

Table 1. General situation of all enterprises in 2004

Items	Scale	All enterprises	Large-scale enterprises	SMEs
Number of enterprises		1,130,525	25,819	1,104,706
Percent makeup		100.00	2.28	97.72
Increasing rate/year (%)		2.94	28.95	2.46
Employment amount (thousands)		9,454*	1,147	7,361
Percent makeup		100.00	12.13	77.86
Increasing rate/year (%)		0.76	1.15	1.00
Hiring amount		6,771*	1,143	4,682
Rate (%)		100.00	16.88	69.15
Increasing rate/year (%)		0.66	1.20	0.99
Sales amount (NT\$ million)		25,395,635	17,900,347	7,495,287
Percent makeup		100.00	70.49	29.51
Increasing rate/year (%)		5.34	3.67	9.56
Sales amount inside the country (NT\$ million)		18,387,558	12,243,155	6,144,404
Percent makeup		100.00	66.58	33.42
Increasing rate/year (%)		3.23	-0.23	10.88
Direct export amount (NT\$ million)		7,088,076	5,657,193	1,350,884
Percent makeup		100.00	80.72	19.28
Increasing rate/year (%)		11.30	13.23	3.88

Note) *Shows that it includes government employers.

Source: The economic department, in conformity with the place of small enterprise (Small and Medium-sized Enterprise Administration, 2003/2004).

Table 2. Total production amount in 2003

	Large-scale enterprises	SMEs
Total production amount (%)	10,355.8 (61.2)	6,568.6 (38.8)

Source: General investigation and preliminary report of industry, commerce, and service of 2003 (Huang, 2004).

the output of their scale, etc. Wu *et al.* (2003) state that SMEs are related to large enterprises by a scale factor, because the criterion of the business scale of enterprises is a multiple, such as different economic indicators of total output, total selling value, total numbers of staff, or total input assets to measure the enterprise scale. There are in fact many different definitions of SME within different districts, and under different national conditions, property characteristics, and government policy.

There are numerous small and medium-sized entrepreneurs in Taiwan, creating vast employment opportunities helping power the domestic economy to grow and helping to maintain a stable society. Table 1 offers the index of all enterprises in Taiwan in 2004, showing the biggest growth being exports at 11.30%. From this point of view, we find that the export sector shed its decline in 2003 and managed to stabilize the situation. At the same time, we conduct an integrated analysis about the amount of enterprises, amount of hiring, employment, and sales amount in Table 2, and we find that the rate of SMEs of all enterprises is 97%. This sector not only offers a large number of employment opportunities, but employment and hiring are much more of the proportion accounted for and are more than big enterprises by number of people. The scales of SMEs are not as good as big enterprises. However, despite this the sales amount of SMEs can roughly be maintained at about 30% of large enterprises and the output value is also 38% of large enterprise. As a result, SMEs do have an important role in Taiwan's economic system.

2.2 Business Value

2.2.1 Definition of Value

“Value” is a kind of lasting faith. It is the foundation of mankind's behavior preference and also makes an individual or society lean towards the purpose state of a certain behavior or existence (Wu, 1994). While Levitt (1975) proposes the view in 1975 that the customer leads, he thinks that products please customers and products have their “value”. Hence, value is a very difficult concrete concept that narrates, but cannot find a differentiation between objective and reason, because it is very subjective. The concept of “value” not only varies with each individual in Value-Based Management, but also changes due to whatever situation arises, which causes everybody to have a different cognition of it (Liu, 2004). This is shown in Figure 1. Most financial theories believe that business value represents enterprises'

future cash flow discount. Owing to the fact that it is difficult to estimate or define future cash flow, any business value assessment is different to some extent. Different options also give different meanings of business value, too. Examples include those from the view of the buyer, seller, intermediary, persons who make loans, and shareholders or operators, as well as using information from the future or past, paying attention to continually managing value or punishing value, paying attention to relative value or absolute value (Wu, 2000), and the view of using value or exchange value (Huang, 2002).

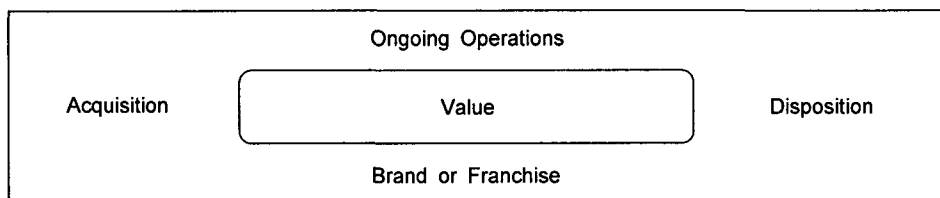


Figure 1. Concept of Value (Knight, 1988)

2.2.2 The Scope of Value Creation

There are many measures for valuing a business and performance indices have been established, such as the Financial Ratio, Balance Valuation, Discounted Cash Flow, Net Income, Return on Equity, Economic Value Added, and Balanced Score Card. However, they only show the result of value created without a description on how to effectively measure value creation. Copeland *et al.* (2000) believe the final aim of creating value is for shareholders and claim that value creation is the foundation for managing a company. The prerequisite for making value happen is that a company's actions build on the foundation of value thinking. Value thinking in turn has two dimensions- value metrics and value mindset. The central item of value metrics is whether management really understands how companies create value and how the stock market values companies. Value mindset refers to how much management cares about shareholder value creation. This mindset expresses itself in several crucial areas of a CEO's thinking and behavior, such as: (1) whether the CEO truly seeks to create as much shareholder value as possible, as opposed to creating as much as is needed to quiet restive shareholders; (2) whether the CEO sees managing for shareholder value as a way of life or just as a short-term project. Building on the foundation of value thinking, there are six areas where a company must act to reinforce the focus on shareholder value, as presented in Figure 2.

1. It must combine an inspiring ambition with tough quantitative targets linked to value creation.
2. It should adopt a rigorous approach to managing its portfolio of businesses for maximum value creation, including radical restructuring if necessary.

3. It must ensure that its organizational design and culture reinforce the value creation imperative.
4. It must develop superior insights into the key value drivers of each of its businesses.
5. It must establish an effective approach to managing the performance of its business units through sophisticated target setting and rigorous performance reviews.
6. It must find ways to motivate managers and employees to work toward value creation through financial rewards and other incentives.

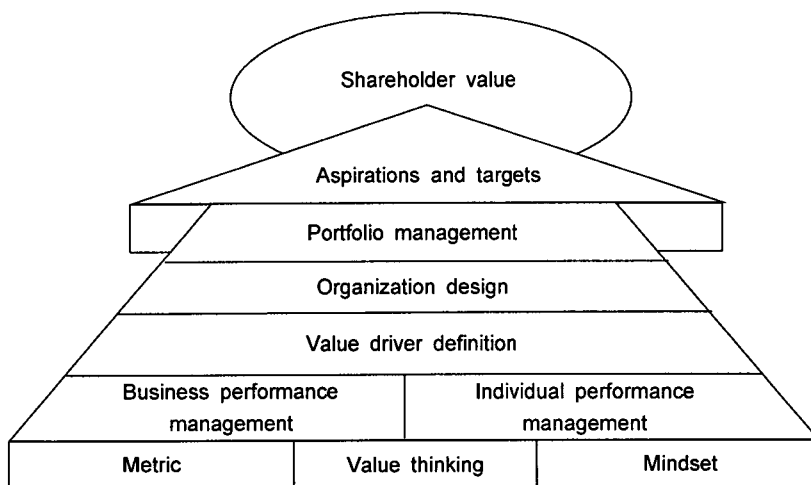


Figure 2. Areas of Activity for Making Value Happen (Copeland et al., 2000)

2.3 Related Reference Studies

Many studies in the past focus on how to select a method to evaluate business value and index application, such as: using EVA to evaluate business value and using DCF and Balanced Score Card to evaluate business performance. We implement a reference review to see how the customer management model in Taiwan affects business value as follows. Lin (2000) applies a value metric point to adopt EVA as the main index in order to evaluate enterprise value by studying the high-tech industry's business performance changes from 1985 to 1999. The study focuses on the operations and financial strategy of Taiwan's high-tech industry of Taiwan during the Asian Financial Storm in 1997. The results verify that Taiwan's high-tech industry was affected and the most important factors were profitability and the turnaround rate in EVA.

Huang (2002) uses a case study to adopt EVA as the value method and compares the difference between traditional financial indices. She finds that the traditional financial index only considers the cost of raising capital, but ignores the cost of equity. At the same time, it does not really reflect an enterprise's intrinsic value to control for the earnings space in

the restricted accounting principle. It again verifies solving the deficiency by the EVA index. This study suggests that a business should adopt EVA instead of the current accounting performance assessment method in order to help the business grow and create more shareholder value. Hua (2003) takes the DCF model by Copeland and assesses the current and future financial performances of Chunghwa Telecom Co. as a case study. This study mainly observes the stability of assessment by the DCF method with different parameters of a sensitivity analysis for Taiwan's enterprises.

Chen (2002) adopts the Market to Book value as the operation performance index of a business and uses the non-financial assessment model, Balanced Score Card, and a regression analysis to assess operational performance, including the financial perspective, the customer perspective, the internal process perspective, and the learning and growth perspective of the electric manufacturing industry for SMEs. The results show that there is a positive significant relation between (1) the sales growth rate and return of equity in the financial perspective; (2) customer satisfaction and business value in the customer perspective; (3) research and development strength and business value in the internal process perspective; (4) employees production ability and education and business in the learning and growth perspective. Fan (2002) surveys 54 publication companies with capital of more than US\$50 million. This study focuses on the relation between customer value and business value by a Customer Relationship Management (CRM) system with industry characteristics, a view of CRM for this industry, and the volition and probability of adopting CRM. The result is an adoption of the CRM model which promotes business value for the publication industry.

According to a related reference review, we find out that most research studies focus on establishing an assessment index and models concerning the business value of Taiwan's enterprises, such as EVA and DCF to evaluate the operational performance of a certain industry. From another point of view, some research studies verify the relation between business values with other assessment indices combined by a non-financial index, such as Balanced Score Card or lead-in CRM, so as to affect business value. To sum up, these evaluated models and financial and non-financial assessment metrics lack development in value creativities. If we want to view business value creativities, then we have to know the problem of Taiwan's business operations today. Ting (2000) focuses on analyzing the crisis factors of business operation management in Taiwan by a case study. This research finds several problems in external factors and internal control through interviews. The paper divides these factors into four perspectives by combining the findings with another research about the internal control problem of SMEs (Chen, 2003) as follows.

1. Operation leadership: This perspective includes when a business proprietor bankrupts the capital individually, a business proprietor is unable to concentrate on operating the business, a business proprietor is seriously ill or dead, there are factions conflicting at the
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operation level, the operation team lacks ability, and so on.

2. Operation planning: This perspective includes an unfeasible vision and objective, an incorrect operation strategy, an incorrect growth strategy, an incorrect dividend policy, an incorrect market policy, incorrect operations, pursuing external profits, illegal punishment losing or terminated, and/or encumbering the image with related businesses.
3. Organization's human structure function: This perspective includes being unable to develop an organization structure, the firm being unable to keep employees, insufficient research and development in product and technology, not setting up an emergency crisis handling system, not being able to adjust to international changes, and so on.
4. Financial: This perspective includes irregular strength in checking the financial strength of business, using high financial leverage, lacking a financial planning function, short-term capital supporting long-term investment, accounts receivable and storage turnaround rate are too low, the internal control system is not practicable, the audit system does not work, and a major shareholder encumber the business with bad debts.

More than 90% of the 26 internal crisis factors can be avoided and prevented from the conclusion of Ting (2000). When operation management levels make decisions about total resource application carelessly, this pushes a company to fall into a crisis and gives consideration to interested parties' (ex: shareholders, customers, suppliers, and employees) profitability so as to create new value or restructure a new business value. To sum up, according to the related reference review about Taiwan's internal business problem and the value creativities by Copeland *et al.* (2000) in "Valuation", there are many factors that affect final shareholders' value change including operation vision, portfolio management, organization structure, value drivers, business performance, and personal performance which drive business value creation. Though most problems will conclude in the scope of value creativities scope, we shall discuss how much SMEs pay attention to these creativities and what differences in industry classification and scale there are in the scope of five creativities by Copeland *et al.* (2000).

3. Methodology

3.1 Structure

The subject of this research focuses on the execution degree approved of the value creativities for SMEs in Taiwan. Copeland *et al.* (2000) consider maximizing the business value in order for sustainable operations. We adopt SMEs of Taiwan as the object of this empirical study through a questionnaire and discuss the difference of value creativities between different industrial characteristics (shown as Figure 3).

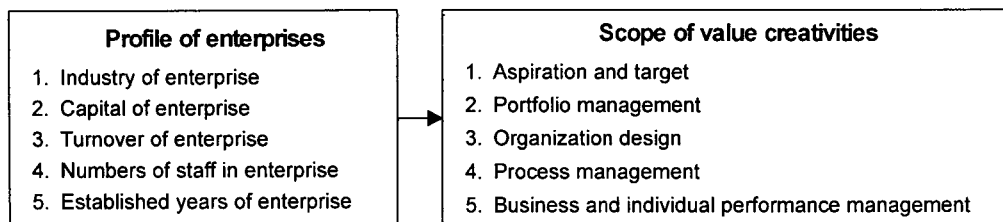


Figure 3. Structure of this Research

3.2 Questionnaire Design

The book “Valuation” looks at the dimensions of value creativities, such as “Aspiration and target,” “Portfolio management,” “Organization design,” “Value driver (process management),” and “Business and individual performance management.” We follow the explanation of these dimensions to develop a questionnaire in two parts, in which one is background information and the other is value creativities. The contents are explained as follows. The first part checks the background information within industrial classification, capital, turnover, number of staff members, and the number of established years, which are defined by the Small and Medium-sized Enterprise Administration in Taiwan.

1. Industrial classification: this research mainly targets the manufacturing industry in Taiwan which is divided into four industries: livelihood industry, chemical industry, metal and machinery industry, and information electronics industry, etc. At the same time, it includes some non-manufacturing industries (service industry) of SMEs that are investigated together.
2. The capital of an enterprise: we focus on enterprises with capital under NT\$80 million as defined by the Small and Medium-sized Enterprises Administration, Ministry of Economic Affairs in Taiwan.
3. Annual turnover of an enterprise: we focus on enterprises with turnover under NT\$100 million as defined by the Small and Medium-sized Enterprises Administration, Ministry of Economic Affairs in Taiwan.
4. Number of staff members: we focus on enterprises with staff members under 200 employees as defined by the Small and Medium-sized Enterprises Administration, Ministry of Economic Affairs in Taiwan.

The second part is the execution degree of each item in the dimensions of value creativities for SMEs. This includes “Aspiration and target,” “Portfolio management,” “Organization design,” “Process management,” and “Business and individual performance management” etc. We follow the characteristics of 35 dimensions developed from the questionnaire by a Likert score coded from 5 to 1.

3.3 Hypotheses

According to the definition of the structure, there are five hypotheses as follows:

H₁: There is a significant difference in the execution of value creativities for different industry classifications.

H₂: There is a significant difference in the execution of value creativities for different capital.

H₃: There is a significant difference in the execution of value creativities for different turnover.

H₄: There is a significant difference in the execution of value creativities for different numbers of staff members.

H₅: There is a significant difference in the execution of value creativities for different number of years established.

3.4 Data Collection

The sample of data collection is from the website of the Small and Medium Enterprise Administration, Ministry of Economic Affairs in Taiwan. We adopt a random sample to analyze the data for this study, and the master questionnaire list is the senior executive level of every enterprise. We sent out 1,000 questionnaires by mail to them in 2005, 700 enterprises in the manufacturing industry and 300 enterprises in the service industry. Total recovered questionnaires are 283 (28.30%), including 226 (32.29%) from the manufacturing industry and 57 (19.00%) from the service industry (shown as Table 3).

Table 3. Responses of the Questionnaire

	Manufacturing industry	Service industry	Total
Sent out	700	300	1,000
Responses	256	68	324
Effective responses	226	57	283
Effective response rate	32.29%	19.00%	28.30%

4. Result and Analysis

We focus on the execution degree of value creativities of SMEs through statistical software SPSS 10.0. This helps analyze the reliability and validity of the questionnaire, description statistics, and difference analysis so as to test whether there are any differences in the execution of value creativities of different characteristics.

4.1 Reliability and Validity Analysis

4.1.1 Reliability

This research takes the Cronbach's α to test inside consistency among the value creativities in the questionnaire. If the Cronbach's α is the largest, then it shows that the relationship of these items in the dimension is greatest and it has a higher inside consistency among them. From Table 4 we find that the Cronbach's α of total dimensions is 0.965, which is separated by the Cronbach's α of aspiration and target at 0.857, for portfolio management at 0.931, for organization design at 0.915, for process management at 0.923, and for business and individual performance management at 0.918. According to standard of judging from Guelford (1965), the reliability of this research is high and worth adopting.

Table 4. Reliability of Research

Dimension	Cronbach's α
Aspiration and target	0.857
Portfolio management	0.931
Organization design	0.915
Process management	0.923
Business and individual performance management	0.918
Total	0.965

4.1.2 Validity

We measure the construction validity of this questionnaire by exploratory factor analysis (EFA), which uses the principal component analysis (PCA) method to conclude less factors to forecast every dimension with raw information (Huang, 2003; Huang, 2002). The factor load of every item exceeds 0.5, and the KMO and Bartlett test of Sphericity is 0.96. It shows that this research has great construct validity.

Table 5. KMO and Bartlett Test of Sphericity

Kaiser-Meyer-Olkin measure of sampling adequacy	0.96	
Bartlett test of sphericity	Chi-square	7,503.99
	Freedom	595
	P-value	0.000

4.2 Description Statistics

From Table 6 we find that the distribution of SMEs is 65 (22.97%) in the metal and machine industry, 56 (19.79%) in the chemical industry, 54 (19.08%) in the livelihood industry, and 51 (18.02%) in the information electronics information industry. However, there are still

57 (20.14%) in the others industry. For the capital scale of SMEs, there are 47 (16.60%) from NT\$5.01 million to NT\$10 million, 46 (16.25%) from NT\$10.01 million to NT\$30 million, 37 (13.07%) more than NT\$80 million, 34 (12.01%) from NT\$50.01 million to NT\$80 million, 34 (12.01%) from NT\$30.01 million to NT\$50 million, 33 (11.66%) from NT\$1.01 million to NT\$5 million, 27 (9.54%) from NT\$510,000 to NT\$1 million, and 12s (4.24%) less than NT\$500,000.

For the number of staff members in SMEs, 63 (22.26%) have from 21 to 50 employees, 60 (21.20%) have less than 20 employees, 53 (18.72%) have from 151 to 200 employees, 51 (18.02%) have from 51 to 100 employees, 33 (11.66%) have from 101 to 150 employees, and 22 (7.77%) have more than 200 employees. For the turnover of SMEs, 66 (23.23%) have more than NT\$200 million, 61 (21.55%) from NT\$10.01 million to NT\$50 million, 43 (15.19%) have from NT\$50.01 million to NT\$100 million, 34 (12.01%) have from NT\$50.01 million to NT\$10 million, 29 (10.24%) from NT\$151 million to NT\$200 million, 26 (9.18%) have less than NT\$5 million, and 23 (8.12%) have from NT\$110 million to NT\$150 million. For the number of established years of SMEs, 134 (47.34%) have been established for more than 10 years, 70 (24.73%) have been set up 7 years to 10 years, 51 (18.02%) are from 4 years to 6 years, and 27 (9.54%) are less than 3 years.

Table 6. Distribution of Questionnaire Recovery

Property		#	Rate	Property		#	Rate
Industry	Livelihood	54	19.08%	No. of staff	Less than 20 employees	60	21.20%
	Chemistry	56	19.79%		21~50 employees	63	22.26%
	Metal and mechanical	65	22.97%		51~100 employees	51	18.02%
	Information Electronics	51	18.02%		101~150 employees	33	11.66%
	Others	57	20.14%		151~200 employees	53	18.72%
Capital (NT\$)	Less than 500,000	12	4.24%		More than 200 employees	22	7.77%
	510,000~1 million	27	9.54%		Turnover (NT\$)	Less than 5 million	26
	1.01~5 million	33	11.66%	5.01~10 million		34	12.01%
	5.01~10 million	47	16.60%	10.01~50 million		61	21.55%
	10.01~30 million	46	16.25%	50.01~100 million		43	15.19%
	30.01~50 million	34	12.01%	110~150 million		23	8.12%
	50.01~80 million	34	12.01%	151~200 million		29	10.24%
	More than 80 million	37	13.07%	More than 200 million		66	23.23%
Years Established	0~3 years	27	9.54%				
	4~6 years	51	18.02%				
	7~10 years	70	24.73%				
	More than 10 years	134	47.34%				

4.3 Overall Analysis of Value Creativities of SMEs

This research analyzes the five dimensions from 35 items of value creativities for the second part of the questionnaire by a Likert five score measurement. We find that the best dimension is “Business and individual performance management” (Mean = 4.035) in Table 7. The second best is “Organization design” (Mean = 3.998), third is “Portfolio management” (Mean = 3.995), fourth is “Aspiration and target” (Mean = 3.988), and the last one is “Process management” (Mean = 3.965). Therefore, our inference is that the managing method of SMEs is directed to business value creativities.

Table 7. Mean of All SMEs

Dimension	Mean
Aspiration and target	3.988
Portfolio management	3.995
Organization design	3.998
Process management	3.965
Business and individual performance management	4.035

4.4 Difference Analysis

We adopt background information and five dimensions to conduct a one-way analysis of variance, such as: industry difference analysis, capital difference analysis, turnover difference analysis, difference analysis on the number of staff members, and difference analysis on the number of years established. From Table 8’s difference analysis of different industries, we find that there is only one difference in the “Portfolio management” perspective, and the electronics information industry shows better execution than the chemical industry. In the other perspectives, there are no differences. Therefore, this research just supports H_1 partially.

Table 8. Difference Analysis of Different industries

Perspective	F	P	Difference
Aspiration and target	0.789	0.533	–
Portfolio management	1.221	0.302	④ > ②
Organization design	0.745	0.562	–
Process management	0.599	0.663	–
Business and individual performance management	0.486	0.746	–

Note) shows no difference; ① Livelihood industry; ② Chemical industry; ③ Metal and mechanical industry; ④ Electronics information industry; ⑤ Others.

From Table 9’s difference analysis of different capital, we find that there are many differ-

ences in every perspective. The bigger capital enterprises (more than NT\$10.01 million) show better execution in the “Aspiration and target” perspective than the smaller ones (NT\$0.51~1 million); the bigger capital ones (more than NT\$10.01 million) show better execution in the “Portfolio management” perspective than the smaller ones (NT\$510,000~ NT\$1 million); the bigger capital ones (more than NT\$5.01 million) show better execution in the “Organization design” perspective than the smaller ones (NT\$510,000~NT\$1 million); the bigger capital ones (more than NT\$5.01 million) show better execution in the “Process management” perspective than the smaller ones (NT\$510,000~NT\$1 million); the bigger capital ones (more than NT\$10.01 million) show better execution in the “Business and individual performance management” perspective than the smaller ones (NT\$510,000~NT\$1 million). Therefore, we infer that bigger capital businesses have a better ability to implement and design value creativities than smaller ones. This research supports H₂.

Table 9. Difference Analysis of Different Capital

Perspective	F	P	Difference
Aspiration and target	3.742	0.001	⑤ > ②; ⑥ > ②; ⑦ > ②③④; ⑧ > ①②③④
Portfolio management	4.568	0.000	⑤ > ②; ⑥ > ②; ⑦ > ②③④; ⑧ > ②③④
Organization design	3.807	0.001	④ > ②; ⑤ > ②; ⑥ > ②; ⑦ > ①②③④; ⑧ > ②
Process management	2.933	0.006	④ > ②; ⑤ > ②; ⑥ > ②; ⑦ > ①②③; ⑧ > ②
Business and individual performance management	1.232	0.285	⑤ > ②; ⑥ > ②; ⑦ > ②; ⑧ > ②

Note) ① less than NT\$0.5million; ② NT\$0.51~NT\$1 million; ③ NT\$1.01~5 million; ④ NT\$5.01~10 million; ⑤ NT\$10.01~30 million; ⑥ NT\$30.01~50 million; ⑦ NT\$50.01~80 million; ⑧ more than NT\$80million.

By Table 10's difference analysis of different turnover, we find that there are many differences in every perspective. The enterprises with larger turnover (more than NT\$0.15 billion) show better execution in the “Aspiration and target” perspective than the smaller ones (NT\$0.51~NT\$50 million), and the larger turnover enterprises (NT\$50.01~NT\$100 million & more than NT\$0.15 billion) show better execution in the “Portfolio management” perspective than the smaller ones (NT\$5.01~NT\$50 million). Another point worth noting is that those with turnover less than NT\$5 million show better execution of value creativities than those with turnover NT\$10.01~50 million. The enterprises with bigger turnover (more than NT\$5.01 million) show better execution in the “Organization design” perspective than the smaller ones (NT\$510,000~NT\$1 million); the bigger turnover enterprises (more than NT\$50.01 million) show better execution in the “Process management” perspective than the smaller ones (NT\$5.01~50 million); the bigger turnover enterprises (more than NT\$151 million) show bet-

ter execution in the “Business and individual performance management” perspective than the smaller ones (NT\$5.01~50 million). Therefore, we infer that those businesses with higher turnover have a better ability to implement and design value creativities than smaller ones. This research supports H₃.

Table 10. Difference Analysis of Different Turnover

Perspective	F	P	Difference
Aspiration and target	5.408	0.000	⑥ > ②③; ⑦ > ①②③④⑤
Portfolio management	4.903	0.000	① > ③; ④ > ②③; ⑥ > ②③; ⑦ > ②③
Organization design	3.939	0.001	④ > ②; ⑤ > ②; ⑥ > ②③; ⑦ > ②③
Process management	3.629	0.002	④ > ②③; ⑥ > ②③; ⑦ > ①②③
Business and individual performance management	2.013	0.064	⑥ > ②③; ⑦ > ②③④⑤

Note) ① less than NT\$5million; ② NT\$5.01~10 million; ③ NT\$10.01~50 million; ④ NT\$50.01~100 million; ⑤ NT\$110~150 million; ⑥ NT\$150~200 million; ⑦ more than NT\$200 million.

By Table 11’s difference analysis of different numbers of staff members, we find that are many differences in every perspective. Enterprises with more employees (51~100 & more than 150) show better execution in the “Aspiration and target” perspective than those with fewer workers (21~150); enterprises with more employees (more than 150) show better execution in the “Portfolio management” perspective than those with fewer workers (21~150); enterprises with more employees (more than 200) show better execution in the “Organization design” perspective than those with fewer workers (21~100); enterprises with more employees (more than 200) show better execution in the “Process management” perspective than those with fewer workers (21~100); enterprises with more employees (more than 200) show better execution in the “Business and individual performance management” perspective than those with fewer workers (21~100). Therefore, we infer that enterprises with more employees have a better ability to implement and design value creativities than those with fewer workers. This research supports H₄.

Table 11. Difference Analysis of Different Numbers of Staff Members

Perspective	F	P	Difference
Aspiration and target	4.767	0.000	③ > ②; ⑤ > ②; ⑥ > ①②③④
Portfolio management	2.591	0.026	⑤ > ②; ⑥ > ②③
Organization design	2.158	0.590	⑥ > ②③
Process management	1.638	0.150	⑥ > ②
Business and individual performance management	1.852	0.103	⑥ > ②③

Note) ① less than 20 employees; ② 21~50 employees; ③ 51~100 employees; ④ 101~150 employees; ⑤ 151~200 employees; ⑥ more than 200 employees.

By Table 12's difference analysis of different number of years established, we find that there many differences in every perspective. Those enterprises established for longer years (more than 10 years) show better execution in the "Aspiration and target" perspective than those enterprises established for shorter years (4~10 years); enterprises established for longer years (more than 10 years) show better execution in the "Portfolio management" perspective than those enterprises established for shorter years (4~10 years); enterprises established for longer years (more than 10 years) show better execution in the "Organization design" perspective than those enterprises established for shorter years (4~10 years); enterprises established for longer years (more than 10 years) show better execution in the "Process management" perspective than those enterprises established for shorter years (4~10 years); enterprises established for longer years (more than 10 years) show better execution in the "Business and individual performance management" perspective than those enterprises established for shorter years (4~10 years). Therefore, we infer that those enterprises established for longer years have a better ability to implement and design value creativities than those enterprises established for shorter years. This research supports H₅.

Table 12. Difference Analysis of Different Numbers of Years Established

Perspective	F	P	Difference
Aspiration and target	8.592	0.000	④ > ②③
Portfolio management	5.709	0.001	④ > ②③
Organization design	6.631	0.000	④ > ②③
Process management	3.945	0.009	④ > ②③
Business and individual performance management	2.567	0.055	④ > ②③

Note) ① 0~3 years; ② 4~6 years; ③ 7~10 years; ④ more than 10 years.

Table 13. Results of Analysis

Hypotheses	Result
H ₁ : There is a significant difference in the execution of value creativities for different industry classifications.	Accept partially
H ₂ : There is a significant difference in the execution of value creativities for enterprises with different capital.	Accept
H ₃ : There is a significant difference in the execution of value creativities for enterprises with different turnover.	Accept
H ₄ : There is a significant difference in the execution of value creativities for enterprises with different numbers of staff members.	Accept
H ₅ : There is a significant difference in the execution of value creativities for enterprises with different numbers of years established.	Accept

To sum up, this research only supports H₁ partially: there are only a few industries that

show a significant difference in different executions of value creativities. We accept H_2 in that there is a significant difference in the execution of value creativities of enterprises with different capital. We also accept H_3 in that there is a significant difference in the execution of value creativities for enterprises with different turnover. We also accept H_4 in that there is a significant difference in the execution of value creativities for enterprises with different numbers of staff members. We also accept H_5 in that there is a significant difference in the execution of value creativities for enterprises with different numbers of years established.

5. Conclusion and Recommendation

This research focuses on the empirical study of value creativity for SMEs in Taiwan, taking the manufacturing industry as the main example. We also compare difference executions of value creativity between the manufacturing industry and non-manufacturing industries. According to the related reference review about Taiwan's business internal problems and the scope of value creativity by Copeland *et al.* (2000) in "Valuation", we investigate the situation of SMEs by classification, capital, turnover, numbers of staff members, and years established. In the end, we are able to provide some information and recommendations to review business value creativity for the enterprises as follows.

5.1 Conclusion

Through this paper's research we are able to make an integrated conclusion for the SMEs through statistical analysis.

1. Aspiration and target perspective: We conclude that there is not any difference between different classifications. However, the greater capital enterprises have a better implementation of value creativities than those with lower capital. Enterprises with greater turnover have a better implementation of value creativities than those will lower turnover. Enterprises with a larger number of staff members have a better implementation of value creativities than those with fewer numbers. Enterprises that have been established for longer years have a better implementation of value creativities than those established under fewer years. The conclusion is that there was only one person to play multi-roles in operation management in the past, and the vision was also set up by the idea of one person or a few shareholders. However, at the same time we find that this situation has changed significantly. Today, the operation management refers to interested parties, including the profitability of shareholders, customers, suppliers, and employees when creating new value or restructuring a new business value. The firms start to respect and promote employee performance and this turns into a chain reaction.
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2. **Portfolio management perspective:** We conclude that there is a better implementation of value creativities in electronics information industry than in the chemical industry. Those enterprises with greater capital have a better implementation of value creativities than those with lower capital. Those enterprises with greater turnover have a better implementation of value creativities than those with lower turnover. Those enterprises with a greater number of staff members have a better implementation of value creativities than those with fewer employees. Those enterprises established for a longer number of years have a better implementation of value creativities than those established for fewer years. At the same time, we find that the set-up of portfolios in the past always refers to high risk investment, and many references also show a lack of any market analysis.
 3. **Organization design perspective:** We conclude that there is not any difference between different classifications. However, those enterprises with greater capital have a better implementation of value creativities than those with lower capital. Those enterprises with greater turnover have the better implementation of value creativities than those with lower turnover. Those enterprises with a greater number of staff members have a better implementation of value creativities than those with fewer employees. Those enterprises established for longer years have a better implementation of value creativities than those established under a shorter period of time. We also find organization structure always follows operation management and vision, and there are identifications in certain affairs about personnel, material, and matters. This also supports the short-term and long-term portfolio strategies.
 4. **Process management perspective:** We conclude that there is no difference between different classifications. However, those enterprises with greater capital have a better implementation of value creativities than those with lower capital. Those enterprises with greater turnover have a better implementation of value creativities than those with lower turnover. Those with a greater number of staff members have a better implementation of value creativities than those with fewer employees. Those enterprises with longer years of being established have a better implementation of value creativities than those established for shorter years. The reason is that employees do not care about the importance of value creativities and process management. However, all SMEs consider to implement the process management which would promote value creation extension and this can connect to the other perspectives.
 5. **Business and personal performance management:** We conclude that there is no difference between different classifications. However, those enterprises with greater capital have a better implementation of value creativities than those with lower capital. Those enterprises with greater turnover have a better implementation of value creativities than those with lower turnover. Those enterprises with a greater number of staff members have a better implementation of value creativities than those with fewer employees. Those enterprises
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that have been established for longer years have a better implementation of value creativities than those established for shorter years. However, business performance has more influence on value creativities. The reason for this is that the value of quantities value is known clearly by the interested parties. For a personal perspective, due to a lack of training employees, reward system, and/or other benefit policies, the enterprises probably could not keep good employees for a long time in the past. From our study, all of them have paid more and more attention to these issues and have applied good benefit policies to retain good workers.

5.2 Recommendation

5.2.1 Recommendation to Industry

1. In the past, Taiwan's economic miracle was created by SMEs. Although there have been a lot of factors to effect the falling down of these enterprises, we consider that they should re-start from aspiration and target to create another round of successful growth.
2. Through the thinking of the operator and team, we find that the value creativities are an up-down process led by aspiration and target leading. The creativities are verified and modified by business performance, but they are always ignored when attention is paid to the others especially in the service industry.
3. Different classifications of SMEs could promote the performances by setting up a vision about operations. Therefore, the enterprises should clearly have a target first and then follow it to scope out the value creativities in order to promote a business investment portfolio strategy, organization, and process management.

5.2.2 Recommendation for Follow-up Research

1. Follow-up research should focus on more different characteristics so as to realize the details of value creativities' execution and the value drivers of SMEs in Taiwan.
2. According to the current situation of SMEs, the external environmental changes, and the technology impact of SMEs, follow-up research could study ways in which to promote business value.

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