

Perspectives to the Global Shock: External Growth Policy-making for SME Manufacturing Industry

Hung-Chun Yang ¹ and Pi-Ching Chen ²

¹ Department of International Business, Chang Jung Christian University
1, Changda Road, Gueiren District, Tainan 71101, Taiwan
Email : oberon9351@yahoo.com.tw

² Department of International Business, Chang Jung Christian University
1, Changda Road, Gueiren District, Tainan 71101, Taiwan
Email: ydpc@mail.cjcu.edu.tw

Corresponding Author:

Pi-Ching Chen

Department of International Business
Chang Jung Christian University, Taiwan
Email: ydpc@mail.cjcu.edu.tw

Abstract

Accompanying the globalization, the large enterprises manipulate the major part of business world and threaten the existence of Small-and-Medium Enterprises (SMEs) gradually; the SMEs are assimilated into either side, extending to large enterprises or ceasing to exist. Both of the alliance and merging style may provoke some potential problems even though they can favor the external growth of scope and competitive capacity for enterprises; self-interest consideration and asymmetry on information can be attributed to be the two main obstacles to the growth. Assuring of least encumbrance and expense, penetrating comprehension and sufficient investigations should be done before the formal steps to discuss the alliance or merging.

Most of SME manufacturing industries in Taiwan are family business. Workable methods can strengthen these factories with ability to counteract the shock of globalization, and the financial turmoil, as well as reduce the labor problems from unemployment, low-paid salary, and the brain-drain issues. Regarding this subject, this paper intends to recommend corresponding strategies from three perspectives of theories: Transaction Cost Economics (TCE), Information Economics (IE), and Industry Cluster (IC); which can be ranged from contract, cost, risk, to cluster power.

Keywords: Globalization, Small-and-Medium Enterprises (SME), Alliance, Merging, Transaction Cost Economics (TCE), Information Economics (IE), Industry Cluster (IC).

Introduction

Even though Small-and-Medium Enterprises (SMEs), especially those family firms, are considered to be the major contributors to economic growth (Westhead & Cowling, 1998), extant data suggest the failed life span for these firms (Jivraj & Woods, 2002; Ward, 2004). Plenty of family firms can be with long life cycle by expanding to across borders (Banalieva & Eddleston, 2011) with international operation; which tells that SMEs need to extend zones of operation, and scale of business as well. The successful experiences of those multinational corporations derived from family firms, the SMEs, expose the need of transformation for everlasting life cycle under the shock of globalization; our local SMEs should refer for the enlargement of business scale since the purchasing power and the quantity of Taiwan consumers are not sufficient to sustain each business development and existence. And the enlargement should consider the alliance and/or merging since which can strengthen the capacity to compete with other manufacturers. Through the growth by enlargement, the SMEs can really have the competence to deal with the global shock by great performance on quality, quantity, and price.

Although the inner reconstruction through reengineering and quality movement can be adopted for higher competence, the outer power supply through alliance and/or merging can accelerate the process; which identifies why the contemporary ideas to successful management “have shifted their focus towards human and social capital” (Mohd, Sheikh, & Bushra, 2017) since which can lead to effective results evidently. Seeking the enlargement from outside, SME should adopt correct steps; Wu (2018) suggests applying both of TCE and IE for assuring of least expense and risk as well as best Returning On Investment (ROI).

Despite the original concepts of the two theories are irrelevant to outer growth, TCE emphasizes the crucial role of self-production for key parts, and IE asks more data and authorized certificates from applicants before the inspection of their qualifications for recruitment, they still can be applied for the enlargement. TCE can be considered as the intention of merging since the self-production needs more employments, spaces, and resources for manufacturing key parts. And, IE can be symbolized as aiming to alliance since the advanced requirements to employees are quite similar to corporal cooperation without binding by the relationship of subordination.

The two perspectives from two theories expose the hardship by selection of growth; both of them have their own grounds. Accessing diverse elements of the partner(s), the potential candidate(s), SMEs can obtain more precise data for analysis and define the better style for business cooperation. This kind of policy-making should be quite urgent for local SMEs; the successive bad performance on national economy signals that SME cannot optimize the business development as the ancient time.

Literature Review

Most of the SMEs have different natures from large enterprises; these factors impede their transformation to large ones, and provoke more problems and disadvantages from capital, human resources, to productivity; Dickinson (2016) categorizes and affords his perspective to the key challenges faced by SMEs into ten factors. But, even with these tangible reasons, many SMEs still have the hesitation to enhance their firms for large enterprises; which should be considered as the priority for discussion while developing the kind of research and development.

Possible Factors to Obstruct the Growth of SME

According to the survey results, Deamud (2017) suggests that “The communication channels rated as effective [by survey respondents]... tended to be the options that involved in-person interaction” (p. 28); which seems to imply the cautious attitude and the conventional ideas inherited by those SME owners no matter how modern technology, especially the social media, has replaced

the position of the traditional in-personal relationship.

When we acknowledge the above mentioned truth about the conservative notion of SME owners, we should know that the workable references and conclusions from past facts articulated by experts through writing, talking, and/or discussions cannot be adopted or approved. The conservative concept makes those owners reject to concede the necessity of business growth even though many business management authors always generate and declare the same claim. When “in-person interaction” (Deamud, 2017) is considered to be more reliable, these SMEs need more newcomers through recruitment on employees, as fresh human resources, for new perspectives instead of business expansion with affiliated and/or outsourcing enterprises.

Except the prudential attitude with conduct of riding the fence, insufficient ambition possessed by SME owners can be regarded as a major factor to trammel the extension to large enterprises. Many of them only want “to secure a livelihood ... rather than to expand business operations”; the problem is that too many “new ventures” for them, and they cannot guarantee “if they will survive or fail in the long run” (Silver, Bonnedahl, &Boström, 2017).

Furthermore, SMEs are much incompetent to develop business with foreign buyers, even though, a small country like us, export is indispensable for our national income. SMEs are more difficult “[to sell] goods and services to foreign markets” caused by knowledge on regulations, cultures, languages, and situations; which explains why SMEs“serv[e] the domestic market [much more]” (Silver, Bonnedahl, &Boström, 2017).

Incompatible Performance of SMEs of Manufacturing Industry

According to the local SME data in **Table 1**, based on the sources by Fiscal Information Agency, Ministry of Finance, and Value-added Business Tax (VAT) data in 2014-2016, released by Small and Medium Enterprise Administration (SMEA) in 2017, the average shares of registered SMEs among the number of enterprises are between 97.61% and 97.73%. Among them, the shares of SMEs on manufacturing industry are between 96.12% and 96.21%. During those three years(2014-2016), the ratios of SMEs and large enterprises (LEs) are between 40.90:1 and 43.14:1. On manufacturing industry, the ratios of SMEs and LEs are between 25.38:1 and 26.19:1. There’s only micro reduction on the number of SMEs annually, both of the average number and the number on manufacturing industry; the scenario identifies although the globalization has generated the mass integrated force for all kinds of business, most of the local SMEs incline not to, without crisis awareness and neglect of the global change on economy structure, enlarge their scale.

Table 1. Number of Enterprises by Industry and Enterprise Size

| Enterprise size | | Total | SMEs | SMEs Share (%) | LEs | LEs Share (%) | SMEs vs. LEs |
|-----------------|------|-----------|-----------|----------------|--------|---------------|--------------|
| Industry / Year | | | | | | | |
| Total | 2014 | 1,386,128 | 1,353,049 | 97.61 | 33,079 | 2.39 | 40.90 : 1 |
| | 2015 | 1,416,738 | 1,383,981 | 97.69 | 32,757 | 2.31 | 42.25 : 1 |
| | 2016 | 1,440,958 | 1,408,313 | 97.73 | 32,645 | 2.27 | 43.14 : 1 |
| Manufacturing | 2014 | 147,404 | 141,817 | 96.21 | 5,587 | 3.79 | 25.38 : 1 |
| | 2015 | 148,800 | 143,118 | 96.18 | 5,682 | 3.82 | 26.19 : 1 |
| | 2016 | 148,971 | 143,184 | 96.12 | 5,787 | 3.88 | 25.74 : 1 |

Note: SMEs stand for small-and-medium enterprises; Les stand for large enterprises.

Regarding the employment in **Table 2**, the average shares of local SMEs' staffs are between 78.19% and 78.25%. Among them, the shares of SMEs on manufacturing industry are between 72.41% and 73.01%. In the years of 2014-2016, the ratios of SMEs and LEs are between 6.15:1 and 6.25:1. On manufacturing industry, the ratios of SMEs and LEs are between 2.68:1 and 2.79:1. The sign explains the high proportion of employment on SMEs; the cooperation between or among different firms won't be affected by insufficient employment. This does not mean that SMEs can maintain human resources easily; the investigation to reshuffle of employees should be able to show the hardness to have qualified staffs for SMEs.

Table 2. Total Employment by Industry and Enterprise Size

| Enterprise size | | Total | SME (million NT\$) | SMEs Share (%) | LEs (million NT\$) | LEs Share (%) | SMEs vs. LEs |
|-----------------|------|--------|--------------------|----------------|--------------------|---------------|--------------|
| Industry / Year | | | | | | | |
| Total | 2014 | 11,079 | 8,669 | 78.25 | 1,387 | 12.52 | 6.25 : 1 |
| | 2015 | 11,198 | 8,759 | 78.22 | 1,415 | 12.64 | 6.19 : 1 |
| | 2016 | 11,267 | 8,810 | 78.19 | 1,432 | 12.71 | 6.15 : 1 |
| Manufacturing | 2014 | 3,007 | 2,196 | 73.01 | 786 | 26.14 | 2.79 : 1 |
| | 2015 | 3,024 | 2,192 | 72.48 | 812 | 26.86 | 2.70 : 1 |
| | 2016 | 3,028 | 2,193 | 72.41 | 818 | 27.02 | 2.68 : 1 |

Note: SMEs stand for small-and-medium enterprises; Les stand for large enterprises.

From the perspective of contribution to economy, the data from sales value, domestic value, and export sales value, can be seen from tables, respectively. These values can pitch the ability and the competence of SMEs to the global competitions. On the sales value in **Table 3**, total SMEs contributions are between 29.42% and 30.71%, while LEs create the record between 28.72% and 29.91%. The ratios of SMEs and LEs in the years of 2014-2016 are between 1:2.26 and 1:2.40. On manufacturing industry, the ratios between SMEs and LEs are between 1:2.34 and 1:2.48. **Table 1** informs the number ratios of SME manufacturing industry is over 25 times higher comparing to LEs, and **Table 2** confirms the employment ratios of SME manufacturing industry is over 2.68 times higher than LEs; but, the total sales value between the two kinds of enterprises display the reverse result. This reveals the truth that the efficacy of SMEs on economy is much fragile comparing to the LEs.

Table 3. Total Sales Value by Industry and Enterprise Size

| Enterprise size Industry /Year | | Total | SMEs (million NT\$) | SMEs Share (%) | LEs (million NT\$) | LEs Share (%) | SMEs vs. LEs |
|-----------------------------------|------|------------|---------------------------|----------------------|--------------------------|---------------------|-----------------|
| Total | 2014 | 40,240,506 | 11,839,868 | 29.42 | 28,400,638 | 70.58 | 1 : 2.40 |
| | 2015 | 38,875,300 | 11,803,100 | 30.36 | 27,072,200 | 69.64 | 1 : 2.29 |
| | 2016 | 38,312,769 | 11,764,677 | 30.71 | 26,548,091 | 69.29 | 1 : 2.26 |
| Manufacturing | 2014 | 15,054,553 | 4,323,807 | 28.72 | 10,730,746 | 71.28 | 1 : 2.48 |
| | 2015 | 13,962,100 | 4,140,270 | 29.65 | 9,821,840 | 70.35 | 1 : 2.37 |
| | 2016 | 13,608,467 | 4,070,669 | 29.91 | 9,537,797 | 70.09 | 1 : 2.34 |

Note: SMEs stand for small-and-medium enterprises; Les stand for large enterprises.

Table 4 reveals the domestic values by SMEs are between 34.46% and 35.85%, while the ones by LEs are between 64.15% and 65.54%. In the years of 2014-2016, the ratios of SMEs and LEs are between 1:1.79 and 1:1.90. On manufacturing industry, the ratios between SMEs and LEs are between 1:1.32 and 1:1.45. There are no big difference between SMEs and LEs; juxtaposing the export sales value before the jurisdiction to SMEs' competence is necessary.

Table 4. Domestic Sales Value by Industry and Enterprise Size

| Enterprise size | | Total | SMEs | SMEs Share (%) | LEs | LEs Share (%) | SMEs vs. LEs |
|-----------------|------|------------|------------|----------------|------------|---------------|--------------|
| Industry / Year | | | | | | | |
| Total | 2014 | 30,019,115 | 10,345,095 | 34.46 | 19,674,021 | 65.54 | 1 : 1.90 |
| | 2015 | 29,158,900 | 10,325,300 | 35.41 | 18,833,600 | 64.59 | 1 : 1.82 |
| | 2016 | 28,848,507 | 10,340,886 | 35.85 | 18,507,621 | 64.15 | 1 : 1.79 |
| Manufacturing | 2014 | 8,051,699 | 3,285,618 | 40.81 | 4,766,081 | 59.19 | 1 : 1.45 |
| | 2015 | 7,339,100 | 3,120,570 | 42.52 | 4,218,540 | 57.48 | 1 : 1.35 |
| | 2016 | 7,186,164 | 3,093,557 | 43.05 | 4,092,607 | 56.95 | 1 : 1.32 |

Note: SMEs stand for small-and-medium enterprises; Les stand for large enterprises.

Table 5 presents the actuality that SMEs are quite fragile and weaker to compete with those big enterprises and with unqualified performance, especially comparing with their numbers and employees are much more than LEs. The export values by SMEs in the years of 2014-2016 are between 14.62% and 15.21%, while those by LEs are between 84.79% and 85.38%. The manufacturing businesses of SMEs are between 14.83% and 15.40%, while those of LEs are between 84.60% and 85.17%. During the years of 2014-2016, the ratios of SMEs and LEs are between 1:5.57 and 1:5.84, and on manufacturing are between 1:5.50 and 1:5.75.

Table 5. Export Sales Value by Industry and Enterprise Size

| Enterprise size | | Total | SMEs | SMEs Share (%) | LEs | LEs Share (%) | SMEs vs. LEs |
|-----------------|------|------------|-----------|----------------|-----------|---------------|--------------|
| Industry / Year | | | | | | | |
| Total | 2014 | 10,221,390 | 1,494,773 | 14.62 | 8,726,617 | 85.38 | 1 : 5.84 |
| | 2015 | 9,716,490 | 1,477,860 | 15.21 | 8,238,630 | 84.79 | 1 : 5.57 |
| | 2016 | 9,464,262 | 1,423,791 | 15.04 | 8,040,471 | 84.96 | 1 : 5.65 |
| Manufacturing | 2014 | 7,002,855 | 1,038,190 | 14.83 | 5,964,665 | 85.17 | 1 : 5.75 |
| | 2015 | 6,623,010 | 1,019,700 | 15.40 | 5,603,300 | 84.60 | 1 : 5.50 |
| | 2016 | 6,422,303 | 977,112 | 15.21 | 5,445,191 | 84.79 | 1 : 5.57 |

Note: SMEs stand for small-and-medium enterprises; Les stand for large enterprises.

The symptom of the incompatible performance declares the local SMEs should rely on alliance and/or merging to solve the problems; even though the trend bothers those owners and with necessity to learn and deal with something new, those owners will have better chance to be away from the global shock.

Methodology

Wu (2018) points out the SMEs should rely on external growth by alliance or merging caused by limited time or resources. But, since most of the SMEs are not well-informed on assessing and selecting proper methods, he suggests adopting transaction cost economics (TCE) and IE as the main theories for similar discussion and/or consideration.

Dilemma between TCE and IE

Wu (2018) declares that most of the cooperated firms will try to utilize the resources, furnished from alliance, for strengthening their own businesses, instead of more concern on the cooperated business. TCE, therefore, inclines to manufacture main components by proprietary business instead of outsourcing partners. But, on the other hand, IE tends to adopt alliance since most of the owners are not familiar with other firms, even the outsourcing factories, and they may spend too much money for an unqualified maker than the original expectation.

Solving the dilemma, both of the theories leave the decision to geography; but, basic notions are still different between the theories. TCE selects to merge the long-distance partners, information economics (IE) rejects since who believes that the asymmetrical information between seller and buyer can be more serious and lead to higher expense on merging. While TCE suggests the cross-holding model, IE considers partial cooperation on sales and research, or assets procurement for least risk.

The suspicion to human natures with consideration of proper protection of wealth triggers the major cause of the dilemma. Especially when most of the local SMEs don't have well-sustained finance, the hesitation of the choice to alliance or merging can be fully comprehended; but, a more thorough model integrated with diverse theories and perspectives should be required by those SMEs.

Effective Mean for Optimized Selection

Regarding the dilemma activated by TCE and IE, the participation of industry cluster should be more reasonable and easy catalyst to final decision on cooperation mode. Frisvold, Duval, and Bickel (2017) suggest “[the] incredible coordination and logistical efficiency across industries”

while considering the industry cluster as “[an] whole value chain” since which can boost the local economy as “direct effects” as well as indirect and induced multiplier effects from “business-to-business transactions” to “household-to-business transactions” (p. 7). This identifies the powerful strength of the cluster for fighting with the global shock.

Confirming the industry cluster’s effectiveness, SMEs can determine the cooperation model with the consideration of the potential candidates’ locations; which means once if those outsourcing producers’ items are at the industry cluster area, manufacturers should have better financial condition, export experience and knowledge, and much trustworthy on their recommendation of their own essence. This also reveals the truth that they should have more orders and potential buyer-list in hands; which can reduce the pressure of the investment and the burden of business extension for those SMEs with intention to merging.

On the contrary, once if the partners for the SMEs are far away from the cluster and without any special patents of products, SMEs should adopt alliance method with strict demand on their reports; the manufacturers far away from the cluster are quite possible to be hazard by unstable finance and without loyal support from customers.

Except the inspection through diverse perspectives with the assistance of above three theories, both of formal and informal checking on finance should be done before final decision to the cooperative type. The formal survey, the credit report by outsourcing partner’s advising bank, can have detailed financial conditions. The informal survey, private investigation, by checking partner’s customers, past buyers, neighbors, or even the private detective should be helpful for grasping the truth evidently.

Check List before Cooperation

Assuring of correct selection of partners and without playing the role squanderer during the discussion of cooperation project, the SMEs owners need the check list with scores to inspect the partner(s).

The sample check list with scores and required items can be referred as **Appendix 1**. According to the content, SME owners should have better chance to find the proper and qualified firms through neutral and scientific method.

There are 15 items on the list, and each of them can be the essential demand; once if the total score is not more than 500, the amount not more than one third of the total figures, the cooperation project should be suspended and/or seeking other possible candidate(s). Manufacturing producers always seek the long-term, even everlasting, running of business; the 15 items should be considered as the basic requests since which contain both of inner abilities, the competence of employers and

employees, and outer aura, the reputation from customers, for successful operation. The principle target for the business is frequent buyer since which can assure of stable income and capital; the 15 elements can determine the life-cycle of manufacturers.

The 15 items mentioned only focus on perspectives; the adjustment on criteria with rigid and detailed content for own industry should be done. Some items can be ranged wildly, for example, the space request for bolt former producer is quite different from optical fiber maker. The refined check-list can be determined after discussing with each manufacturer; proprietary check list can activate the proper cooperation with reasonable expense for substantial profit in the future.

Conclusion

Globalization is like the double side of one knife; none can predict if which can really favor national economy. Since this is the trend, each business owner can only adopt well-equipped preparation with effective methods for survival, and even upgraded performance. The economy style is quite far away from conventional mode, and none can guarantee commercial success to manufacturers; even the official commitments cannot be relied as the official support cannot sustain the operation of business.

When we discuss the possibility of the organization of M-shape society in our country, we should apply possible strategies to enhance the essences of our national industries; the high proportion of our SME with low contribution on export values is a serious warning sign. Our country is a small one without sufficient national buyers, even with population-intensive condition, but with high dependence on export. Strengthening local business should encourage the formation of capital-intensive type for powerful capacity to the global challenge, from price to quality, and utilize the globalization as the best tool to compete with other global brands. Due to the time and finance, there's no survey by field research neither delicate design on check list according to some industry and/or some selected firm. This issue can be done while developing lengthy article for similar study.

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Appendix**Appendix 1: Check List before Cooperation by Alliance / Merging**

| Item | Score (1~10) | Criteria |
|----------------------------|-----------------|--|
| 1. Finance | | Ratio between Assets and Debts |
| 2. Location | | Distance to cluster industry area |
| 3. Credit | | - Bank records - Buyers' Statements |
| 4. Quality | | - Award - Return by Defectives: times |
| 5. Delivery | | Delay or not: times |
| 6. Law Suit | | - Business - Fraud - Violence |
| 7. Buyers | | - LEs - Number |
| 8. Payment | | - Delay - Unsolved |
| 9. Space | | Varied according to measurement of product |
| 10. Human Relationship | | - Official - Non-official |
| 11. Language Proficiency | | |
| 12. Experience | | - Export - Max. order |
| 13. Machine and Equipments | | - Year - Full-automatic |
| 14. Traffic | | - Parking - Cargo and Discharge |
| 15. Safty | | - Inside and outside of Factory |