Generational Change, Innovation Capacity and Enterprise Development: Case Studies of Family SMEs in Manufacturing in Malaysia

Lee Kean Yew  
University of Malaya

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What are the key themes in my research?

**Generational Change**
- Exhibit different managerial style and decision making across generations in the family enterprise.
  - (Astrachan and Shanker, 2003; Westhead, 1998)

**Tacit Knowledge**
- Informal knowledge aligned with personal experience. Knowledge transformation from tacit to codified clearly seen from founder to the next generation.
  - (Fletcher, 2000; Polanyi, 1966; Aoki, 2001)

**Innovation**
- Relates to capacity to develop new products through R&D and 3M adopted from Chandler.
  - (Schumpeter, 1961; Chandler, 1962)
Family business is defined as single governed on generational basis and is a “total system” associated with the founding entrepreneur and the family members (Chua et al., 1999; Dyer and Handler, 1994).

In the United States, family business contribute half of the country’s GDP and mostly SMEs. Among 250 largest companies on the stock exchange in France, 57 percent are with a family provenance (Hech and Trent, 1999; Astrachan and Shanker, 2003).

Global Entrepreneurship Monitor (GEM) study in 2002 indicated that business venture investment by family and relatives rose from 30 percent to 78 percent or more. Jasani’s International survey report in 2002 showed 70 percent of family enterprises are SMEs, 30 percent run by the second or third generation founder’s heirs.
Knowledge transformation is not easy - man knows more than he can explain.

Knowledge Codifying – codifying knowledge considered as long term investment that evolved from hierarchical to horizontal organization in family enterprise (Polanyi, 1966; Aoki, 2001).

Large scale enterprises more likely to perform innovativeness compared with small firms since there is the link between firm size and innovation dynamics. Therefore, Chandler’s study is important to analyze the evolution of these firms historically. (Chandler et al., 1999; Chandler, 1997; Chen and Hsu, 2009).

Another body of literature has noted certain family-owned enterprises are more efficient access to new technology, create joint ventures and obtain foreign contracts (Liedholm and Mead, 1987; Tan and Batra, 1995).
SMEs - “Micro/Small/Medium” – fostering knowledge intensive economics as stated in Economic Transformation Program and determined refer to sales, assets & employees.

SMEs in Manufacturing – rose between 80s and 90s through joint ventures with foreign firms and fostering knowledge intensive manufacturing, plastic and food processing. Mostly Chinese dominate and not investing sufficiently in R&D (Lim, 1981; Gomez, 2007).

SMEs in food sector- conservative with traditional technologies in rural area. However, Malaysia’s food exports amounted at RM 18.2 billion (cocoa, processed food and edible oil) with adoption of biotechnology and farming.
To evaluate the impact of generational change in the family enterprises and find out are they retained a prominent presence in their industries to compete in the market?

To conduct case studies with comparative study between first and the next generation. To determine was the conversion of tacit knowledge to a codified forms such as branded products and value added products that sustained the firms across two or more generations?

To determine the employment of Chandler’s concept of 3Ms (Marketing, Management and Manufacturing) will enhance innovation capabilities and strategy management for enterprise development, was the deployment of the 3Ms a core factor for internal expansion of firms, promoting professional management or venture into new businesses.
Family Business Research—mostly focused on succession but rarely focused on innovation or generational change. Ownership, commitment and experiences are the elements in family business.

Stages of Family Business—Paternalistic with ad hoc management styles in first generation, mature with sibling team in second generation, diversified with family branches in third generation (Gersick et al., 1997; Lansberg 1999).

Transition Periods of Family Business—first generation controlled the business decision than second generation partnered with siblings to create duty segregation to setup top management. More ideas generate to survive the business when third generation allowed cousin consortium.
Craig and Moores (2006) mentioned most of the family business utilized with its basic or inherent features across different generation to manage innovation.

Lansberg (1991) concluded innovation only absorbed by larger companies where huge aggressiveness in marketing techniques focused in family enterprise rather than innovation management.

Hadjimanolís (2000) linked strategic orientation of a family enterprise with its ability to identify and occupy a niche market in an economic from time to time.

Chang (2006) pointed out the form of enterprise development of family enterprises have not focused due to the inadequacy of the tool analysis to assess the performance of these companies.

Gomez (2009) argued that there was a call for business researchers adopting a developmental state perspective to apply organization synthesis, historiography research and particularly the work of Chandler.

Gomez (2009) notes, there are lack of concern to consider Chandler’s work among academics studying the rise of Asian firms development.
Gomez (1999) conducted his masterpiece on Chinese business in Malaysia provides an in-depth examination of eight large publicly-list family owned Chinese firms.

Gomez (2007) considered Chandlerian perspectives such as organization capabilities to compare family firms in Britain and Malaysia.

Chandler (1962) utilized concept of “administrative coordination” to indicate the growing of professional development to remove dysfunctional institutions and ill-conceived regulation that hindered new market development.

Berle and Means (1967) contend the mode of ownership and control of a firm relates to sustainable development in the long term.

Galambos (1970) promoted “organizational synthesis” involved organization building in both public and private with the creation of new networks.

Jones (2005) suggested the study of historiography on entrepreneurial to understand the economic development in business, industries and economics.
Framework of Research

Adapted from Hadjimanolis, 2000; Hurley and Hult, 1998.
# Conceptual Framework Findings

<table>
<thead>
<tr>
<th>Key Concepts</th>
<th>Author(s) &amp; Year</th>
<th>Findings</th>
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</table>
(2) Successful innovation mainly depends on organization capabilities to shape organization outcome. |
(2) This uniqueness, heritage authenticity and family objectives as core competencies towards longevity development. |
| Organization Structure (3Ms)       | Chandler (1997), Chandler (1990), Chandler et al. (1999), Elbaum and Lazonick (1986) | (1) Manufacturing processes were stimulated by new waves of technological innovation evolved into capital-intensive industries.  
(2) The growing specialization of roles led to management structure crowded by low, middle and top management autonomous.  
(3) Competitive advantage triggered the birth of the first movers. |
(2) Family culture may restraint entrepreneurial dynamics.  
(3) The innovation capacity and strategy help to rejuvenate the new knowledge transformation and managerial coordination to become modernize enterprises |
## Conceptual Framework Findings

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<td></td>
<td>Zahra and Covin (1995), Lansberg (1998), Kets de Vries (1994), Handler and Kram</td>
<td>(2) Silcox highlights some family enterprises play the sizable role in the early and middle stage of US business development but they are inherently inefficient (Henry Disston Saw Works).</td>
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<td></td>
<td>(1998), Ward (1987), Scranton (1991, 1997), Harry Levinson (1973)</td>
<td>(3) Scranton argued the limitation of US government aid to small family firms and this social institution has proven to be remarkably resilient to improve Chandler’s study since Chandler does not discuss deeply into the role of state.</td>
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<td>(4) Harry Levinson indicated the family enterprises in the US are rife with feuds to shift into professional management.</td>
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<tr>
<td>Strategy Implementation and Enterprise</td>
<td>Zahra (2005), Kim et al. (2008), Chang et al. (2010), Habbershon and Williams</td>
<td>(1) Family enterprises are expected to achieve long term sustainability by investing in organization capabilities, R &amp; D, joint-ventures and outsourcing to promote openness ideas.</td>
</tr>
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<td>Development</td>
<td>(1999), Lim et al. (2010), Kim et al. (2008), Chen and Hsu (2009), Manuri et al.</td>
<td>(2) Transitions in ownership and control influence the growth of development as pointed out by Chandler. Nepotism on family involvement is clearly seen in family enterprises.</td>
</tr>
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<td>(2010), Simon and Hitt (2003), Craig and Dibrell (2006), Salvato and Moores</td>
<td>(3) Therefore, family firms tend to be more long-term oriented on competitive advantage to create new products or niche products to cope with changes in internal and external market.</td>
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3.13 Organizational Changes
H1: Generational change will influence organization changes leading to different strategic management

3.1.4 Objectives
H2: New objective after generational change will shape strategy

3.1.5 3Ms
H3: Introduction of the 3Ms will influence strategy planning on how an enterprise develops

Exploring Innovation Capacity

3.1.6 Innovation Capacity
H4: Innovation capacity across generations will influence strategy to develop an enterprise

Innovation Capacity After Explored
New organization structure, upgraded processes, new marketing plan and talent management

Transfer of Enterprise Development

3.1.7 Strategy and Enterprise Development
H5: Strategy planning will inform the pattern of development of a family enterprise

Mature Enterprise Development
Depends on how the new generation with their characteristic that match the strategy of development
Interpretive Approach – Precise information is not readily available given the uniqueness structure of most family business studies. They are more qualitative research including case studies based on 12 selective family business studies (Goffee, 1996).

Sampling Method and Size – Purposive and Quota sampling to conduct family business studies in Malaysia’s food and plastic manufacturing with 28 enterprises in a range of 2nd, 3rd and 3rd + generations among family business owners.

17 in depth case studies had been conducted to find out tacit knowledge transformation across generations by using design of interview guide. Reasons to choose food sector also based on nature of business, location area and award recognition.
Sampling Lists

Large Scale Family Enterprises
1st, 2nd, 3rd
- **Plastic Enterprises**: SKP and Chang Huat.
- **Food Enterprises**: London Biscuit, Khong Guan, Eu Yan Sang, Baker’s Cottage and TPC.
- **Business Nature**: Public listed and basically involved in large scale production in electronic devices, oil and gas, confectioneries and medicines.

Medium Scale Family Enterprises
1st, 2nd, 3rd
- **Plastic Enterprises**: Bina, Kemajuan, Guppy, Lam Seng, Lee Huat.
- **Food Enterprises**: Tatawa, Ghee Hiang, King’s, Kum Lun Tai, Laksamana, Vit and Besfomec.
- **Business Nature**: Export oriented and basically involved in creating golden brand products such as piping, house wares, biscuits, noodles and herbs essence.

Small Scale Family Enterprises
1st, 2nd, 3rd
- **Plastic Enterprises**: Polynic, Rayaco, Sweetco and Yew Lee
- **Food Enterprises**: Red Horse, Hei Hwang, Regent, Eng Hup Seng and Kum Thim.
- **Business Nature**: Local brand production and basically targeted domestic market to promote Malaysia heritage such as floor mats, canvas, white coffee, peanuts, tropical fruit juice concentrates and sesame oil.
History of Manufacturing and Tacit Knowledge in Malaysia


- **Innovation among Manufacturing Sector** – Most innovating manufacturing firms in Malaysia were export-dependent and younger. Presence of S&T was low, internal funding with little collaboration. Food processing, rubber and plastic were highest in radical innovation led to new products and processes.

- Food processing, rubber and plastic become more competitive using a shorter product cycle in highly concentrated markets and translate tacit knowledge into commercial and value-added production.
Changes in the product range by a number of these plastic family SMEs shows transformation of tacit knowledge, generating annual sales and new employment of employees and managers.

- New Products – mostly involved in plastic injection products to cater MNCs in semiconductor and electronic with institutional support to reach world class statute in EPZs,

- New Managers – hired technically competent personnel, managers or family members to open new market and improving products; and

- New Equipment – Plastic injection SMEs producing parts and accessories for MNCs requiring more equipment and prone to capital investment by promoting R&D.
Impact of Developing Tacit Knowledge in Plastic Production

First Generation
- Knowledge in bicycle manufacturing

G1 – Lack of technology transfer and financial strength for R&D laboratory plant. Always remain stagnant and consider only family participation during first generation

Second Generation
- Tacit knowledge in line with plastic houses needs

G2 – Interpret tacit knowledge in line with booming industry and market trend collaborated with MNCs during second generation

Third Generation
- Extended production line from plastic house to plastic drainage (household division), from other equipment to household accessories (kitchen design division and from premium line gifts to bathroom products premium gift division)

G3 – Extending innovation capacity to innovate new products, new paradigm shift to other sector beside plastic and coping with booming plastic industry during third generation

Developing Tacit Knowledge in Plastic Production over the Generation
Family SMEs in the Food Industry

- **New Trends** – lifestyle changes altered food consumption habits with growing demand of easy prepared food products such as RTE, RTC & RTD,

- **New Generation** – number of food products built based on the tacit knowledge to remain unique during generational shifts; and

- **New Branches** – Improving brand recognition to expand retailing opportunities and introducing business franchising hence promote entrepreneur dynamic in food production.
Table 5.3 – Family SMEs in food production triggered by change in market trends, consumption patterns and brand reputation of their traditions

Table 5.2 – Family SMEs in food production made use of organization capabilities to codify tacit knowledge, promote R&D as enlightened way to produce Asian specialties. Practice nepotism to adopt new business method

Table 5.4 – Family SMEs in food production very keen to professionalize, diversify their business, create brand products in new market trends and introduce private label for export

Analysis of Historical, Family Tree and Development Changes in Food Production
Table 5.6 – Family SMEs in food production transformed its 3Ms to keep pace with economic changes and changed to more formalizing linkage

Table 5.5 – Family SMEs in food production re-strategize the 3Ms by incorporating new ideas to ensure longevity, creating dynamic and flattened organization structure to promote newly food trends

Table 5.7 – Family SMEs in food production focused on innovative production, seize new market and promote locally food products solely based on inherited tacit knowledge over the generation

Analysis of Generational Change on Tacit Knowledge, 3Ms and Organizational Outcomes in Food Production
# Impact of Developing Tacit Knowledge in Food Production

## Table 5.9 – Family SMEs in food production promoting collaborations, global supply chain and government support towards evolution

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<td>Promoted through Hawthorn approach, increased productivity and efficiency.</td>
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<td>Battled through Fresh Green Farms, moved from “old” to “new” enterprise through top-down relations management.</td>
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## Table 5.8 – Family SMEs in food production adopting innovation to develop tacit knowledge, encouraging family involvement to produce creative ideas, moved from “old” to “new” enterprise through top-down relations management

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## Table 5.10 – Family SMEs in food production extending their innovation capacity to create niche market, increasing R&D intensity and developing authentic Asian food products in non-Asian countries

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Conclusion

Generational Change (1st, 2nd & 3rd)
- **From First to Second Generation**: More consultative and run away from generation shadow.
- **From First to Third Generation**: More consensual and mesmerizing tradition excellence.
- **Plastic production SMEs** mostly encourage **build on reputation** to **compete** in the marketplace whereby **food production SMEs** mostly **preserve traditional food recipe** to **innovate** and look different in the marketplace. As time goes by, strong practice traditional of excellence.

Innovation Capacity (From Tacit to Codified)
- **From tacit to codified in plastic production**: New technology and target high end economy and design culture in the plastic engineering to avoid outdated design and **drastic changes** in **high technology revolution**.
- **From tacit to codified in food production**: New food culture and target new market segment based on consumer food consumption to avoid **slow pace and stolen ideas** from other competitor.
- **Plastic production SMEs** mostly **promote R & D** to produce new products that match of **booming industry** and **MNCs requirement** whereby **food production SMEs** emphasize on **scientific approach** in food production.

Enterprise Development (From Small, Medium and Large Enterprise)
- **Large Scale Enterprise**: Longer decision and requiring longer planning to develop enterprise.
- **Medium Scale Enterprise**: Quick decision making and mostly promote quality assurance and new product development to serve large mass production towards enterprise development.
- **Small Scale Enterprise**: Extremely quick decision making to keep pace with customer design experience and requirement. However, limited to single customer based with larger contract manufacturing.
Discussion

Research Question (3)

- How have family SMEs that have undergone one or more generational shifts retained a prominent presence in their respective industries?
  - Both family SMEs these sectors incorporate professional management and codifying tacit knowledge differently.
  - Higher technical skills specificity is essential in plastic production to retain as plastic service and solution.
  - Uniqueness to keep their core tradition is important in food production to retain as traditional of excellence.

Research Question (2)

- Was the conversion of tacit knowledge to a codified form, through R&D, a crucial factor that sustained the firm across two or more generations?
  - Yes, it helps to turn family capitalism to professionalize enterprises.
  - Creation brand products & niche markets and protect trade secret.
  - Tacit knowledge become irrelevant and less important in plastic production to match with fast changes in the technology.
  - Food production strongly preserve their tacit knowledge to achieve competitive advantage.

Research Question (3)

- Was the deployment of the 3Ms a core factor for internal expansion of the firm?
  - The deployment of the 3Ms encouraging R & D to keep pace with public policies.
  - Shifting to EOI from household cottage business to global supply chain management.
  - Highlighted their long tradition practice by implementing vertical integration strategy in food sector.
  - Nurturing MNCs vendor-ship experience to fine tune their products that match with the industry trend in plastic sector.
Thank You for Listening