

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

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What are the key themes in my research?



Generational
Change

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)



Tacit
Knowledge



Innovation

Innovation- relates to capacity to develop new products through R&D and 3M adopted from Chandler.
(Schumpeter, 1961; Chandler, 1962)

Definition and Context

- 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.

Research Problem

- 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).

Small and Medium Enterprises (SMEs) in Malaysia

- 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.

Table 1.1: Micro, small and medium enterprise definitions

Size/Sector	Agro-based Industries	Manufacturing-related production	Professional services
Micro	Less than RM200,000	Less than RM250,000	Less than RM200,000
Small	Between RM200,000 & less than RM1 million	Between RM250,000 & less than RM10 million	Between RM200,000 & less than RM1 million
Medium	Between RM1 million & RM5 million	Between RM10 million & RM25 million	Between RM1 million & RM5 million

Source: National SME Development Council (NSDC) (2005)

Number of SMEs By Sector, 2005

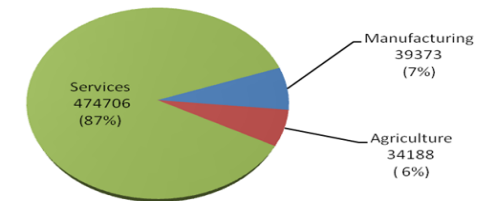


Figure 1.2: SME contribution to GDP in 2005
Source: Department of Statistic Malaysia, Economic Planning Unit

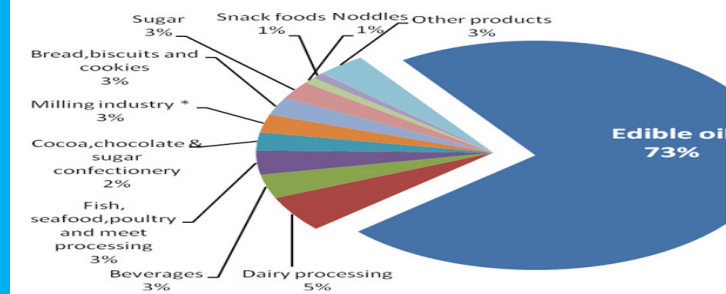


Figure 1.5: Sub-sectors of processed food products in Malaysia, 2008

Significance of the Study

- 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.

Literature Reviews on Family Business

- 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.

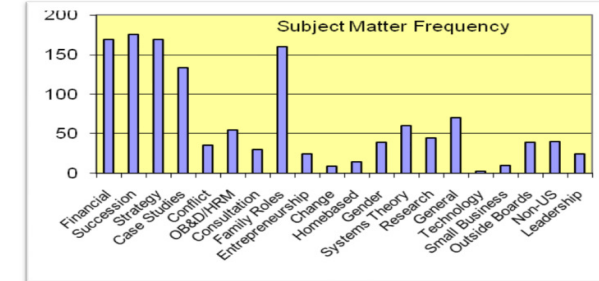


Figure 2.1: The Literature of Family Business According to Subject Matter
*Source: Susan and George (2008)

Table 2.1: Stages of Family Business Evolution across Generations

Generation	Generation 1 : Entrepreneur	Generation 2 : Family Partnership	Generation 3 : Business Dynasty
Business Form	Entrepreneurship	Maturing business	Holding company or family subsidiaries, with diversified businesses
Mode of Control	Founder/owner/manager	Sibling team	Family branches
Strategy	Personal vision	Renew business	Profit sustainability, generate new wealth
Governance structure	Ad hoc, implicit	Informal board, implicit policies	Outsiders governance, formal policies

Source: Gersick et al., 1997; Lansberg, 1999

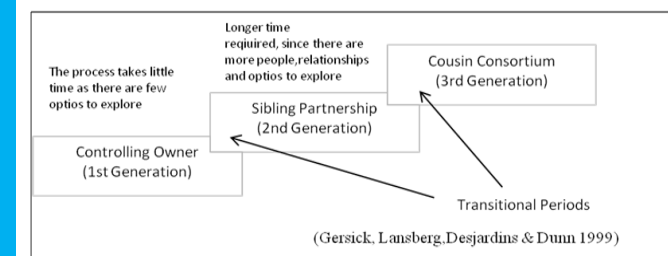


Figure 2.2: Gersick's Transition Periods Model

Literature Reviews on Family Business and Business History

- 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.
- Hadjimanolis (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.

Literature Reviews on Business History and Enterprise 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



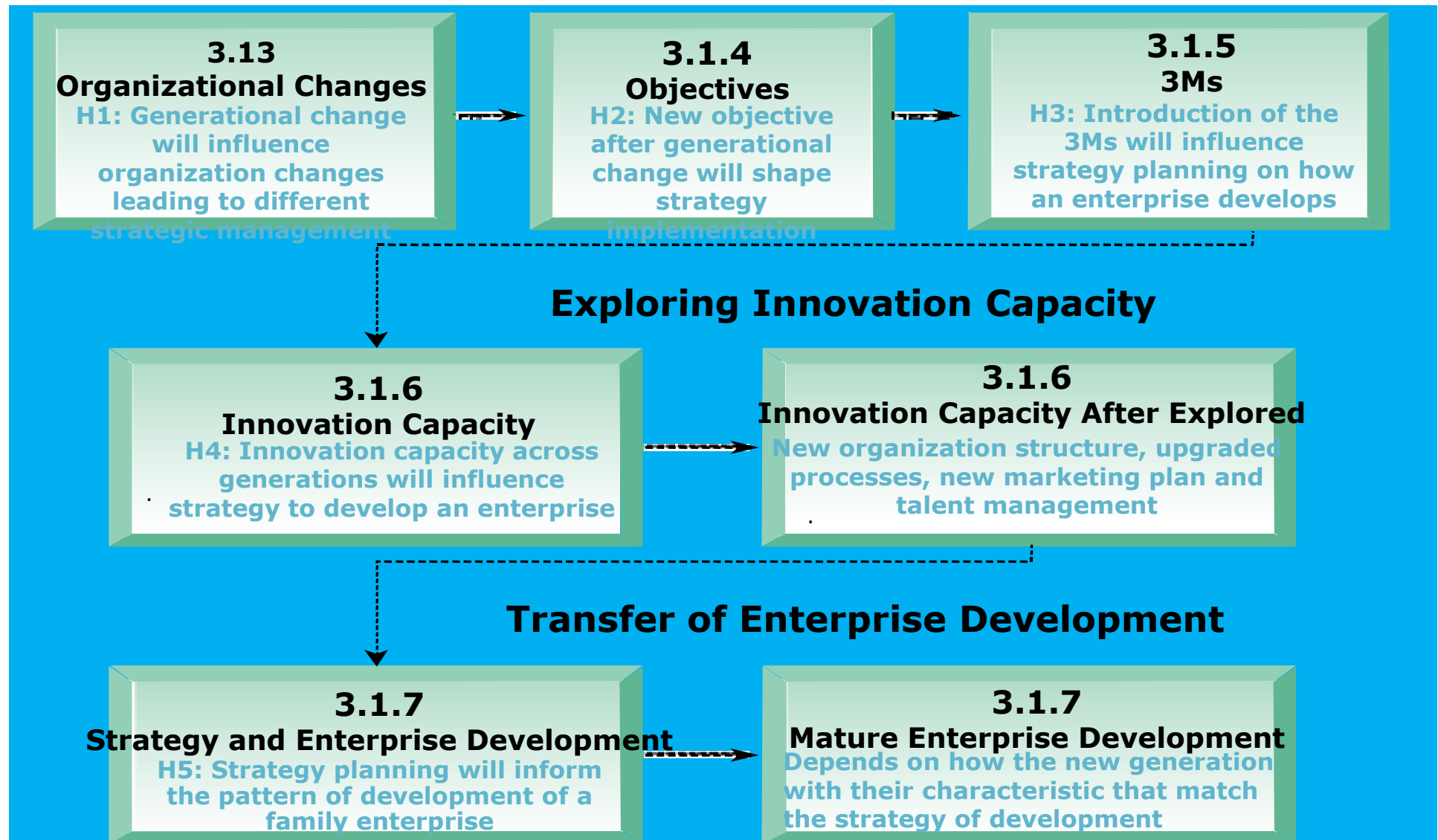
Conceptual Framework Findings

Key Concepts	Author(s) & Year	Findings
Profile and Organization Changes	Chandler (1997), Chandler et al.(1999), Damanpour (1991), Hurley and Hult (1998), Siguaw et al. (2006), Prajoga and Ahmet (2006)	<ol style="list-style-type: none"> (1) Organization changes have shaped the evolution of an family enterprise to nurture innovativeness. (2) Successful innovation mainly depends on organization capabilities to shape organization outcome.
Organization Characteristics (Objectives)	Habbershon and Williams (1999), Ward (1987, 1999, 2008), Corbetta (1999), Aronoff and Ward (2001)	<ol style="list-style-type: none"> (1) Resource Based View (RBV) examine the uniqueness of the family business structure to enhance enterprise development. (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)	<ol style="list-style-type: none"> (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 .
Innovation Capacity	Daft (1982), Damanpour (1991), Hult et al. (2004), Burns and Stalker (1961), Zahra et al. (2006)	<ol style="list-style-type: none"> (1) New processes or managerial skills will enhance organization capabilities to create new products. (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

Key Concepts	Author(s) & Year	Findings
Innovation Capacity in Family Business	Porter (2001), Barney (1991), Dosi et al. (1992), Lall (1995), Nonaka (1995), Zahra and Covin (1995), Lansberg (1998), Kets de Vries (1994), Handler and Kram (1998), Ward (1987), Scranton (1991, 1997), Harry Levinson (1973)	<ol style="list-style-type: none"> (1) The ability of family enterprises to convert tacit knowledge into codified knowledge depends on how the next generation ensuring new knowledge and new processes. (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). (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. (4) Harry Levinson indicated the family enterprises in the US are rife with feuds to shift into professional management.
Strategy Implementation and Enterprise Development	Zahra (2005), Kim et al. (2008), Chang et al. (2010), Habbershon and Williams (1999), Lim et al. (2010), Kim et al. (2008), Chen and Hsu (2009), Manuri et al. (2010), Simon and Hitt (2003), Craig and Dibrell (2006), Salvato and Moores (2010), Penrose (1980), Chandler (1977)	<ol style="list-style-type: none"> (1) Family enterprises are expected to achieve long term sustainability by investing in organization capabilities, R & D, joint-ventures and outsourcing to promote openness ideas. (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. (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.

Hypothesis of Research



Research Methodology

- 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.

Table 3.1: Selected family business studies using an interpretive approach

Author (year), outlet	Topic	Theory/concepts	Empirical material (data collection)	Main findings and contribution
(McCollom, 1992) <i>Family Business Review</i>	Family and non-family employees experiences of membership in a family business system	Family business system theory	565 stories from family-owned retail firms	Stories reflect daily processes by which relations between family and business systems are created and sustained, through stories a system is constructed that reinforces a family's influence over the business
(Cole, 1997) <i>Family Business Review</i>	Role of women and impact of gender issues on women's working lives	Gender, role and rules	Study of women in context of their business family in nine firms (interviews)	Women treat other women as invisible, they do not accept traditional roles, they take longer to make decisions, they advance as fast as men and believe they decide how much children hold them back professionally
(Johannisson and Huse, 2000) <i>Entrepreneurship & Regional Development</i>	Recruiting non-family board members	Governance, contrasting ideologies (paternalism, managerialism, entrepreneurialism)	Pilot survey of 12 family businesses, case research into two family businesses (interviews)	Activating the board by adding non-family members enforces managerialism and challenges dominant ideologies of paternalism and entrepreneurship, tensions can create energized and more competitive family business

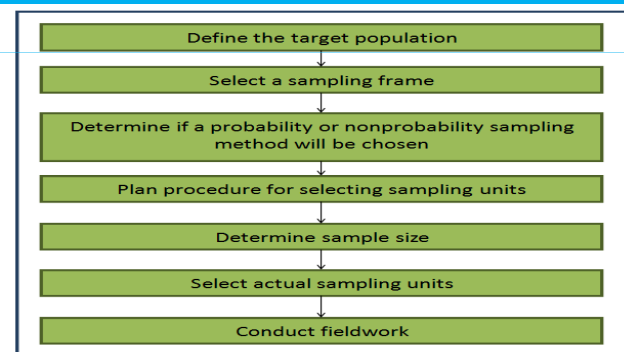


Figure 3.2: Sampling Method and Size

Table 3.2: Sampling Research Area and Reason for Choosing Food Manufacturing Firms

Family Enterprise	Nature of Business	Location Area	Awards	Reason to choose
1. Eu Yan Sang	Traditional Chinese Herbs, Medicine and Clinics	Pudu Shaw Parade, Kuala Lumpur State	-The bBrand Laureate Great Entrepreneur Brand Icon Leadership Awards 2011: YBhg Dato' Anne Eu	-3 rd Generation family business. -Father, son and daughter leadership role clearly seen and assigned in Singapore, Hong Kong & Malaysia. -Able to see the evolution changes from traditional shop to retailing and manufacturing –to TCM Clinic.
2. Khong Guan	Cream Filled Biscuits and Biscuit Waffer	Seras Industrial Estate, Johor State	-Mondr Selection International Accolade Best Quality Biscuits 2004	-3 rd Generation family business. -Father and son leadership role clearly seen. -Able to see the evolution changes from traditional biscuit maker to overseas Chinese-to internationalize -Extremely technology upgrading in the manufacturing chain towards enterprise development.
3. London Biscuit	Snack Food, Cake Roll and Candies Manufacturer	Desa Cemerlang Industrial Estate Ulu Tiara, Johor State	-MITI Product Industry Excellence Award 2004.	-3 rd Generation family business. -Husband, wife and their beloved child's leadership roles are clearly seen. -Able to see the evolution changes from family business –to snack food-to London Biscuit group. -Extremely broad of product diversification added in the marketing chain towards enterprise development.

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

- Structural Information – Transformed from an agricultural to manufacturing and service sectors. From British colonial rule (1986-195) to ISI (1957-1969), EOI (1970-1980), 2nd ISI (1981-1986), return to EOI (1987-1996) and Asian crisis (1997-2005).
- 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.

Table 4.1: Malaysia: Percentage contribution of different sectors to GDP, 1970-2010

	1970	1980	1990	1995	2000	2010
Primary *	44.3	33.9	28.1	20.5	15.50	15.4
Secondary**	18.3	24.9	30.0	36.5	40.6	29.9
Tertiary	37.4	41.2	41.9	43.0	43.9	57.6

Sources: Malaysia 1991:72; Malaysia 1996:52

* Includes agriculture and mining

** Includes manufacturing and construction

Table 4.2: Percentage of Portion by Manufacturing Subsector and Type of Innovation

Industrial Subsector	Non-Innovative (%)	Incremental Innovation (%)	Radical Innovation (%)	Total Firms	Percentage
Food Processing	24.4	21.1	27.8	202	24.6
Textiles	3.7	6.1	2.4	32	3.9
Garments	10.9	4.4	6.2	68	8.3
Wood Products	3.7	1.7	2.4	24	2.9
Chemical Products	5.6	10.6	7.2	58	7.1
Rubber and Plastic	22.7	31.7	27.8	213	25.9
Machinery and equipment	9.7	9.4	7.2	74	9.0
Electrical Machinery, Apparatus, Office, Accounting & Computing Electronics (Equipment & Components)	2.1	1.1	3.8	19	2.3
	3.9	3.3	3.4	30	3.7
Auto Parts, Motor Vehicles	2.6	3.3	3.4	24	2.9
Furniture	10.7	7.2	8.6	77	9.4
Total	100	100	100	821	100

Source: Productivity and Investment Climate Survey 2, 2007

Table 4.3: Types of Innovation among Manufacturing Firms

Types of Innovation	Innovation	Nos.	Per cent
Incremental Innovation	Product or process improvements in quality or cost	461	42.1
	Upgraded a product line	507	46.3
Radical Innovation	Developed a major new product line	286	26.1
	Filed patents/utility models or copyright protected materials	165	15.7

Source: Productivity and Investment Climate Survey 2, 2007

History of Family Firms and Tacit Knowledge in Plastic Manufacturing

Table 4.4: Profile and Organization Changes in Family SMEs in Plastic Manufacturing across Generations

Plastic Enterprises/ Business Nature	Year incorporated / Generation	Annual Sales (RM million)	Number of Employees	Number of Family Members	Number of Managers	Number of Subsidiaries	Number of Equipment	Number of New Products
1. SKP Resources (Plastic Injection)	1974 2 nd	10-255	100-2000	3-90	5-50	1-6	7-200	+150
2. Bina Plastic (PVC Pipe)	1980 2 nd	8-172	100-500	2-80	3-12	1-2	2-50	+120
3. Guppy Plastic (Aquarium & Plastic Injection)	1970 2 nd	5-115	50-700	3-40	5-40	1-5	3-100	+130
4. Chang Huat (Plastic Injection)	1988 2 nd	5-86	50-400	2-30	4-40	1-6	4-150	+90
5. Lee Huat (Housewares)	1947 3 rd	2-58	20-600	3-20	3-10	1-4	3-80	+110
6. Polynic (Plastic Injection)	1977 2 nd	5-55	15-60	3-10	2-8	1-2	2-25	+70
7. Lam Seng (Container & Plastic Injection)	1967 2 nd	5-45	20-330	2-10	2-20	1-7	4-110	+90
8. Kemajuan (Carrier Tape)	1973 2 nd	2-38	20-110	2-20	3-10	1-3	3-50	+50
9. Yew Lee (Broom & Brush)	1970 2 nd	2-18	5-70	2-10	2-6	1-2	3-20	+80
10. Cemerlang Raya (Broom & Brush)	1987 2 nd	1-5	5-100	2-10	2-5	None	3-10	+48
11. Sweetco (PVC Canvas)	1929 3 rd	0.5-1.5	30-50	2-8	1-5	1-4	5-10	+20

Source: Annual Company Records from Companies Commission of Malaysia (SSM).


- 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.
- 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.

Impact of Developing Tacit Knowledge in Plastic Production



<p>5.Lee Huat Plastic (Medium Scale Enterprise) (1947-2011) <u>First Generation</u> (Tacit knowledge) -Knowledge in bicycle stands making</p>  <p>(Create the Concept) -Plastic wares manufacturer</p> 	<p>First Generation</p> <p>Skill: Interprets tacit knowledge in line with bicycle stands manufacturer.</p> <p>Top Down: Top management leads teams aligned with local household community service to provide repairing service.</p> <p>PCI: Openness to ideas, though accepts technology to upgrade from manual hand work to the automated machine to produce drawer parts.</p> <p>Involvement: High family involvement of family members, siblings to create good service reputation in the housing community.</p>	<p>First Generation</p> <p>Strategy: Frequent family participation between founder's wife and the family members to work hard in providing repairing service to the local housing community and entitled as convenience workshop.</p>	<p>First Generation</p> <p>Enterprise Development: Extends production line from plastic aquarium tanks to office equipments and semiconductor industry due to the booming industry in the particular time frame based on tacit knowledge</p>
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G1 – Lack of technology transfer and financial strength for R&D laboratory plant. Always remain stagnant and consider only family participation during first generation

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

<p><u>Second Generation</u> (Convert to codify) -Convert from housewares to OEM premium gifts and bottles for local MNCs.</p>  <p>↓</p>	<p>Second Generation</p> <p>Skill: Interprets tacit knowledge in line with plastic housewares sector.</p> <p>Top Down: Top management leads teams aligned with plastic wares ranges from household to MNCs.</p> <p>PCI: Openness to ideas, though accepts Korea and Japan technology to produce safely products and high value added capabilities. Involvement: High family involvement and corporation to engage effective coordination in 3Ms.</p>	<p>Second Generation</p> <p>Strategy: Frequent family participation within founder's family members usually lead the family business towards quality plastic wares manufacturer to attract foreign investment as appointed free gifts manufacturer with local MNCs ranges from food and beverage to medicine group.</p>	<p>Second Generation</p> <p>Enterprise Development: Extends production line from plastic food container to plastic dining set (household division), from office equipments to bathroom accessories (interior design division and from premium free gifts to complementary goods (premium gifts division).</p>
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Developing Tacit Knowledge in Plastic Production over the Generation

<p><u>Third Generation</u> (Innovation Capacity) -Design capabilities based on globalized trend and ideas (Japan, Europe and US)</p>  <p>↓</p> <p>(Enterprise Development) -Consultant based enterprise in design concept of innovative plastic utensils.</p> 	<p>Third Generation</p> <p>Skill: Interprets tacit knowledge in line with knowledge transfer between Malaysia human resources and Italian institute to enhance design capabilities in plastic housewares.</p> <p>Top Down: Top management leads teams aligned with design culture of LH Plus to match with globalized trends and ideas.</p> <p>PCI: Openness to ideas, though accepts advance technology with less maintenance to produce high design outlook from Japan, Europe and US design.</p> <p>Involvement: High family involvement of young family members of Gen-X and Gen-Y encourage to involve in own consultative enterprise.</p>	<p>Third Generation</p> <p>Strategy: Frequent family participation among Gen-X and Gen-Y and allowed the upcoming generation establish their own enterprises based on their education received and personal interest. More towards flexible organization and provide customized service.</p>	<p>Third Generation</p> <p>Enterprise Development: Extends production line from product based plastic housewares manufacturer to service based consultant in design concept of innovative plastic utensils.</p>
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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

Family SMEs in the Food Industry

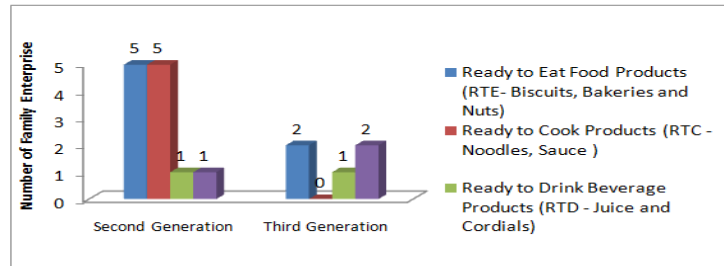


Figure 5.1: Business Nature of Family SMEs in Food Production across Generations

Table 5.1: Profile and Organizational Changes in Family SMEs in Food Manufacturing across Generations

Family Enterprises/ Business Nature	Year incorporated / Generation	Annual Sales (RM million)	Number of Employees	Number of Family Members	Number of Managers	Number of Branches / Outlets	Number of Equipment	Number of New Products
1. Eu Yan Sang (Chinese Herbs)	1842 / 3 rd	1-500	30-600	20-100	3-50	1-200	1-179	+150
2. Khong Guan (Biscuits)	1937 / 3 rd	2-330	25-450	10-130	5-28	1-21	2-185	+80
3. London Biscuit (Biscuits)	1994 / 2 nd	10-100	50-470	5-40	5-40	1-5	2-50	+60
4. Tatava (Biscuits)	1981 / 2 nd	5-39	20-200	6-50	4-40	1-2	1-30	+50
5. Laksamana Usaha (Noodles)	1975 / 2 nd	1-30	10-120	8-40	2-10	0	2-20	+30
6. TPC Plus (Eggs)	1976 / 2 nd	5-28	20-330	5-35	2-8	0	2-18	+5
7. Vit Makanan (Noodles)	1975 / 2 nd	2-25	15-300	8-67	2-10	0	8-170	+30
8. Besfomee (Chinese herbs)	1948 / 3 rd	1-20	8-180	8-60	3-11	1-3	2-45	+40
9. King's Confectionery (Cakes & breads)	1977 / 2 nd	1-20	10-320	9-70	2-15	1-80	5-230	+80
10. Baker's Cottage (Cakes & Breads)	1994 / 3 rd	2-19	20-110	10-30	3-7	1-30	8-180	+55
11. Ghee Hiang (Sesame oil & biscuits)	1865 / 3 rd	0.5-18	8-105	20-55	2-10	1-3	3-20	+40
12. Kum Thim (Soy sauce)	1970 / 2 nd	1-15	30-50	10-35	1-7	1-3	5-15	+47
13. KLT Food (Restaurant)	1972 / 2 nd	1-8	5-100	8-58	3-20	1-6	1-10	+25
14. Red Horse (Cordials)	1964 / 2 nd	0.3-8	6-100	10-18	2-5	1-3	3-12	+20
15. Hui Hwang (Coffee)	1975 / 2 nd	0.7-6	10-30	8-15	2-7	1-2	2-30	+30
16. Eng Hup Seng (Sesame oil)	1987 / 2 nd	0.2-5	5-25	3-10	2-7	0	2-38	+33
17. Regent Food (Peanuts)	1981 / 2 nd	0.2-4	5-50	6-10	2-5	0	2-8	+19

Source: Annual company records from Companies Commission of Malaysia

- 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.

Brief History, Family Tree and Family Role in Food Production





Eu Yan Sang (Large Scale Enterprise) (Ready to Buy Products) (Chinese Herbs)	1837-2011 (3rd Generation)	Brief History - Founders established Yan Sang Medical shop (Gopeng, Perak) in 1879. - During second generation, Eu Tong Sang inherited the family business as eldest son. Firm flourished and expanded rapidly within Malaysia (1906), into Hong Kong (1909), Singapore (1910), China (1920). Established Eu Yan Sang name. - Incorporated Eu Yan Sang (Singapore) in 1957, Eu Yan Sang (Malaysia) in 1959 with retail shops and listed as Eu Yan Sang Holding in 1973. - Lun Chang Holdings acquired a majority stake (1990). Eu Yan Sang tried to conduct joint-venture with UK-based Oxford Natural Products PLC to develop pharmaceutical and nutraceutical products (1995); collaborated with Chinese University of Hong Kong to develop Menoese pills (2002); promoted clinic consultation (2001) and practiced good aromatics for herbs (2008). - Knowledge handed down from Chinese herbs trading to healing treatments by establishing retail shop, TCM products and clinics.
Product Manufacturer First Generation (1842-1890) Chinese herbs medical shop sell imported herbs from China		Family Tree First Generation (1842-1890) - Not involved All shares in Singapore Dollar
		Family Tree Early establishment of Yan Sang medical shop
Second Generation (1890-1941) Packaging herbs to cater to ethnic Chinese market in Malaysia, Hong Kong and Singapore		Second Generation (1890-1941) Eu Kong (Founder) Eu Tong Sen Son of Eu Kong
		
Third Generation (1930-1993) Eu Yan Sang capsule and pills in hygiene packaging for export		Third Generation (1930-1993) (Eu Tong Sen's sons) Eu Kong Chae (1 st) Eu Kong Loon (2 nd) Eu Kong Ngo (3 rd) William Eu (4 th) Edward Eu (5 th) Richard Eu (6 th) Charles Eu (7 th) John Eu (8 th) Fred Eu (9 th) Roy Eu (11 th) *Andrew Eu (10 th)
		
Upcoming Generation (1994-2011) Created new pharmaceutical products after joining forces with British-based company.		Upcoming Generation (1994-2011) (Children of Richard Eu) Richard Yik Eu (\$2,945,143 shares) David Eu (\$1,823,866 shares) Geoffrey Eu Helena Eu (Children of John Eu) Clifford Eu (\$90,743 shares) Loretta Eu Vicky Eu (Children of Andrew Eu) Robert James Eu (\$2,263,838 shares) Douglas Eu Philip Eu Anne Eu (\$75,000 shares)
		Family Role in Organization Structure First Generation (1842-1890) EYSH: EYS Holdings Ltd EYSH: EYS International Holdings Pte Ltd Second Generation (1890-1941) EYS: EYS HK Hong Kong Ltd Ex: Executive

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 5.3 – Family SMEs in food production triggered by change in market trends, consumption patterns and brand reputation of their traditions

Table 5.3: Analysis of History, Family Tree and Family Role of SMEs in Food Production

Family Enterprises/ Business Nature	Enterprise Type	Year establishment/ Generation/ Succession	Start-up Enterprise	Triggering Event	Change Enterprise and Development	Change in Management System	Change in Production System
1. Eu Yan Sang (EYS) (Chinese Herbs)	Large Enterprise	1842-2011 (3 rd Generation) (Father-Cross)	Started from herbs medical hall in Perak	Triggered by immigrant Chinese in Malaya who had skills for physician care	Changed to Eu Yan Sang herbal and health care retail chain	Professional management with mentor in medicine and science profession	Joint forces with Oxford Natural Product to develop new supplements
2. Kheng Guan (Biscuits)	Large Enterprise	1937-2011 (3 rd Generation) (Father-Nephew)	Started from commodities trade in Southeast Asia	Triggered by large mass demand for biscuits as primary food	Changed to Asian Kheng Guan group with mass marketing chain	Retaining management with directors experienced in investment	Sign agreement with Ametto to venture into overseas and Asian markets
3. London Biscuit (Biscuits)	Large Enterprise	1994-2011 (2 nd Generation) (Father-Son)	Started as timber merchant trading	Triggered by entrepreneurial dynamics, as time studied by second generation at Singapore University	Changed to London Biscuit and largest roll cake production in Southeast Asia	Professional management led by professional second generation and Chief Operating Officer	Mastering new technology in instant confectioneries and candies, through acquisition
4. Tatara (Biscuits)	Medium Enterprise	1981-2011 (2 nd Generation) (Father-Nephew)	Started as traditional wedding parties house	Triggered by private labelling in biscuits production from Japan	Changed to private labelling and export based biscuits production	Evolution from traditional pastries to food technology management	Private labelling for export - developed Tatara biscuits and nutraceuticals
5. King's Confectionery (Pastries)	Medium Enterprise	1977-2011 (2 nd Generation) (Father-Daughter-Son)	Started as kumkum style coffee shop in Rawang	Triggered by personal passion and interest to make pastries	Changed to retail confectionery chain and lifestyle cafe	Family ownership combined with business franchising	From King's bakeries to venture into airline food and franchising
6. Lakamman Uthia (Noodles)	Medium Enterprise	1975-2011 (2 nd Generation) (Father-Son-Daughter)	Started as home based noodle production in Ampang	Triggered by market demand for instant noodles, Malaysian style	Changed to hand-based cleanest noodle production	Family management with foreign ownership from Thailand	Cleanest Hand noodles and venture into Chinese Muslim cafe
7. TPC Plus (Egg)	Large Enterprise	1976-2011 (2 nd Generation) (Brother-Outsider)	Started as poultry chicken farm in Melaka	Triggered by contract labelling to supply fresh eggs to McDonalds	Changed to TPC Plus, owned by Lombroso and ventured into biotechnology	From Yee brothers to Lombroso ownership and remained as egg poultry producer	Ventured into enzyme vanguard biotechnology after being sold to Lombroso
8. Viñ Makam (Noodles)	Medium Enterprise	1975-2011 (2 nd Generation) (Father-Son)	Started as Taiwanese foods trader in Kuala Lumpur	Triggered by market demand for instant noodle	Changed to Viñ instant noodles manufacturer	Gradually emphasized marketing and IT	Partnership with Tesco to distribute Viñ instant noodles

Analysis of Historical, Family Tree and Development Changes in Food Production

Table 5.4: Analysis of History and Family Tree Based on Size and Age of Family Enterprise in Food Production

Size and Age of Family Enterprise	Brief History in Family Enterprises	Family Tree in Family Enterprises	Family Role in Family Enterprises
Large-Scale Enterprise (London, Kheng Guan, Eu Yan Sang, Baker's College, TPC Plus)	Start-up: Started as ethnic enterprise to serve local community products such as herbs, biscuits, poultry and canned food. Change: Emerged as largest Southeast Asian food production firm, serving Asian or non-Asian market demand for products such as Eu Yan Sang herbs and London Roll Cakes.	From First to the Next Generation Family Tree: Founder introduced clan-based organization structure by inviting kith and kin and chemists from other countries who were more skillful to run the business. Third and fourth generations not interested in production and some of them incorporated foreign partnerships.	From First to the Next Generation Family Role: Family members fully relying on Chief Operating Officer (COO) to handle management, marketing and manufacturing. Started to recruit professional COO with different working experience and ventured into diversified business activities.
Medium-Scale Enterprise (Tatara, King's Confectionery, KLT Food, Lakamman Uthia, Viñ Makam, Besttime and Kim Tim)	Start-up: Started as traditional home-based food production based on biscuits, pastries, nutraceuticals and health supplements based on tacit knowledge. Change: Because unique brand in food production, such as Viñ's instant noodles, Besttime essence, King's pastries, Kim Tim 'in restaurant, Lakamman noodles and Ghee Heng sesame oil.	From First to the Next Generation Family Tree: Founders' heirs placed at the top position. However, the next generations adopted sibling partnership and given full autonomy to run the enterprise. Family members used to involve other industries or branches related to the primary business.	From First to the Next Generation Family Role: Family members fully relying on personal experience in educational background to develop tacit knowledge into commercialized business in the area of planning, tourism, IT networking, real estate, hospitals, restaurants and lifestyle cafes.
Small-Scale Enterprise (Red Horse, Hei Hwang, Regent Food, Eng Hup Sang, Ghee Heng)	Start-up: Started as home-based food producers of parents, concentrated pastries, sesame oil, biscuits and sauces with strong influence from founder's family background. Change: Changed to contract manufacturing in food production to create niche market such as Hei Hwang 'job white coffee, Ghee Heng biscuits, Regent's peanut.	From First to the Next Generation Family Tree: Founders' heirs still had generational shadow and under founder's influence during decision making. Heirs trained from early childhood, seen as Hei Hwang, Red Horse, Regent and Eng Hup Sang.	From First to the Next Generation Family Role: Family members fully relying on export trading to explore business opportunities in Southeast Asia, USA and European countries. Very few family members wanted to stay longer due to long working hours and repetitive and boring job tasks.

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

Generational Change on Tacit Knowledge, 3Ms and Outcomes

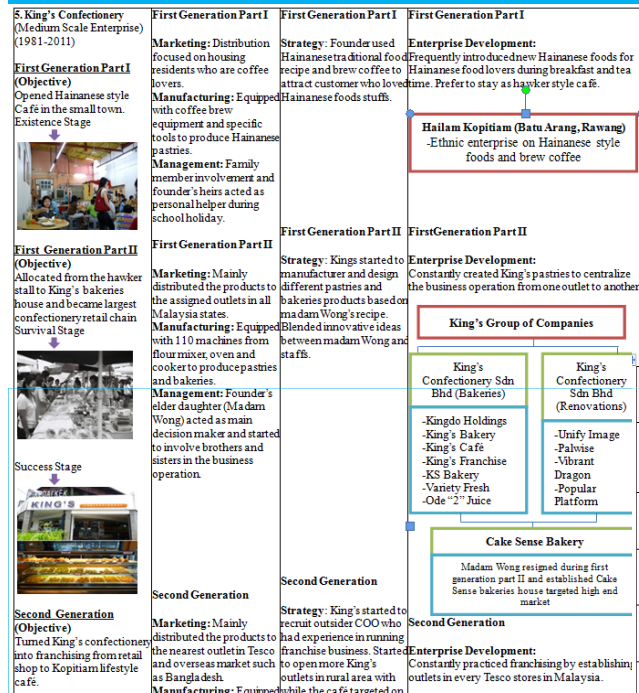


Table 5.5 – Family SMEs in food production re-strategize the 3Ms by incorporating new ideas to ensure longevity, creating dynamic and flattened organization structure to promote newly food trends

Table 5.6 – Family SMEs in food production transformed its 3Ms to keep pace with economic changes and changed to more formalizing linkage

Table 5.6: Analysis of Effect of Generational Change on Tacit Knowledge, 3Ms and Organizational Outcomes in Food Production

Family Enterprises/ Business Nature	Type of Enterprise	Year of Establishment/ Generation/ Succession	Marketing changes	Manufacturing Changes	Management Changes	Strategy (1 st Generation)	Strategy (Next Generation)	Enterprise development (1 st Generation)	Enterprise development (Next Generation)
1. Eu Yan Sang (Chinese Herbs)	Large Enterprise	1843-2011 (3 rd Generation) (Father-Cousin)	From tin-mining workers to Chinese medicine practice	From traditional remedies to scientific approach to herbal supplements	From attorney management to central administrative system	Promoted herbal concoctions by opening Chinese medical halls	Developed therapeutic formulation for certain diseases	From Eu Yan Sang medical hall	From EYS to TC clinics, property real estate and food biotechnology
2. Khong Guan (Biscuits)	Large Enterprise	1937-2011 (3 rd Generation) (Father-Nephew)	From Chinese market to non-Chinese market	From old metal cup to Australia Amotts biscuit formulation	From hiring staff from China to professional management	Promoted businesses related to primary trade	Developed Asian brands to serve Western market	From biscuits production to flour milling, investment	From biscuits to Asian food
3. London Biscuit (Biscuits)	Large Enterprise	1994-2011 (2 nd Generation) (Father-Son)	From kid's confectionery to instant based confectionery	From savoury confectionery to instant based packaging technology	From family management to COO/CEO management	Promoted acquiring strategy to master technology	Developed Malaysia's largest instant confectionery for export	From macaroni to multiple confectionery	From local confectionery to instant food
4. Tatava (Biscuits)	Medium Enterprise	1981-2011 (2 nd Generation) (Father-Nephew)	From wedding cakes to Japan biscuits	From wedding cake mould to export-based biscuit production	From family pastries house to Tatava management	Promoted customer order strategy upon request for export	Developed food technology to explore niche market	Upgraded to OEM biscuits to own from generational shadow	From Tatava joint venture with sister company
5. King's Confection (Cakes & Breads)	Medium Enterprise	1977-2011 (2 nd Generation) (Father-Daughter-Son)	From hawker food to confectionery & lifestyle café retailing	From home-based oven bakeries to bakeries and pastries retailing	From daughter's bakeries production to son's retailing management	Promoted Hainanese style pastries and bakeries	Developed retailing and franchising confectionery and lifestyle café	From hawker stall to King's pastries retail chain	From King's outlet franchising with Tesco
6. Laksamana Usha (Noodles)	Medium Enterprise	1973-2011 (2 nd Generation) (Father-Son-Daughter)	From ethnic enterprise in Malaysia to halal Chinese food	From hand-made noodles production to introduction of clean technology	From family involvement to partnership with Malaysia and Thai	Promoted prompt delivery by van selling and cash on delivery	Developed Chinese halal-based noodle production in Malaysia	From home-based noodle production to warehouse production	From noodle production to halal-based noodle export
7. TPC Pua (Egg)	Large Enterprise	1976-2011 (2 nd Generation) (Brother-Outsider)	From food operation chain to biotechnology	From poultry farming to house R&D facilities	From Yee family to Liev family ownership	Promoted Waco egg supply to McDonalds	Developed integrated poultry farm to enhance biotechnology	From own farming to contract farming	From poultry farming to organic vinegar farm
8. Vit Makaman (Noodles)	Medium Enterprise	1973-2011 (2 nd Generation) (Father-Son)	From Taiwan food to UK Tesco chain	From oil fried to air dried instant noodles production	From founder's tea den to cyber virtual management	Promoted Malaysian authentic style instant noodles	Developed supply chain halal-based SMEs foods	From small premises to large noodle warehouse	From Vit's instant food to global export of halal food
9. Besfomec (Chinese Herbs)	Medium Enterprise	1948-2011 (3 rd Generation) (Father-Son-Nephew)	From local TCM to overseas Chinese market	From traditional herb remedies to essence health supplements	From traditional to combined East and West management	Promoted physician and herb remedies to local community	Developed herb remedies with scientific approach	From herbal shop to clinical medical hall	From herbal essence to health tourism gifts shop

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

Size and Age of Family Enterprise	Generational Change in 3Ms	Strategic Management in 3Ms	Enterprise Development in 3Ms
Large Scale Family Enterprise Food (London Biscuit, Khong Guan, Eu Yan Sang, Baker's Cottage and TPC Pua)	Marketing: Marketed as Asian foods such as biscuits, TCM, canned drink and food. Manufacturing: Manufactured under new technology adopted such as tetra packaging, twist wrapping with Disney character and frozen technology. Management: Managed under joint ventures with Ajinomoto, British natural product, Lonbisco and Arnott.	From First to the Next Generation Strategy: Developed 3Ms to engage between traditional methods with globalized trends such as therapeutic formulation for medicine, Southeast Asia instant confectionery, Asian and tropical canned foods and drinks and Malaysian pastries.	From First to the Next Generation Enterprise Development: Upgraded the enterprise to innovate tacit knowledge into different approach such as TCM healing centre, East-west assorted biscuits production, tropical Southeast Asian canned foods, biotechnology poultry farming and livestock industry.
Medium Scale Family Enterprise Food (Tatava, Kum Thim, King's Confectionery, KLT Food, Laksamana Usha, Vit Makaman, Besfomec)	Marketing: Marketed as famous local brands such as King's pastries, Kum Lun Tai restaurant chain, Vit's instant noodles and Fomec essence products. Manufacturing: Manufactured through value-added technology to achieve recognition such as clean technology, convenience frozen technology, healthy air-dried production and good manufacturing practice. Management: Managed under flatted organization to enhance openness ideas such as COO/CEO management, cyber virtual management and formed R&D team.	From First to the Next Generation Strategy: Developed 3Ms to improve food production with market recognition such as cholesterol free King's bakeries, herbal remedies essence, UK Tesco stores Halal instant noodles and Japanese Tanje mooncake production.	From First to the Next Generation Enterprise Development: Upgraded the enterprise to innovate tacit knowledge choices such as lifestyle food fusion food operation chain, tourism gift shop, Malaysian cleanest noodles enterprise.
Small Scale Family Enterprise Food (Red Horse, Hei Hwang, Regent Food, Eng Hup Seng, Ghee Hiang)	Marketing: Marketed as personalized private label to target export market such as fruit juice trademark label, order upon request peanuts and health supplements.	From First to the Next Generation Strategy: Developed 3Ms to capture bigger market with penetration through export such as halal fruit	From First to the Next Generation Enterprise Development: Upgraded the enterprise to innovate tacit knowledge but still remained single

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

Impact of Developing Tacit Knowledge in Food Production



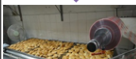

11. Ghee Hiang (Small Scale Enterprise) (1865-2011) First Generation (Tacit knowledge) Knowledge oriental pastries and sesame oil production  (Create the concept) Established oriental pastries and sesame oil flagship store in Penang, Chop Ghee Hiang.  Second Generation (Convert to codify) -Converted into Tau Sar Piah biscuits and baby brand sesame oil production. -Ventured into property development   Third Generation (Innovation Capacity) -Conducted R & D in sesame oil related products and	First Generation Skill: Interpreted and adopted knowledge in traditional oriental pastries and sesame oil production. Top Down: Top management under founder's leadership by inviting pastry chef from China to produce oriental pastries and sesame oil. PUI: Openness ideas and traced back to the traditional recipe in pastries and sesame oil to serve Chinese community in Penang. Involvement: The founder with his wife and pastry chefs from China to involve in the ethnic based flagship stores, Penang.	First Generation Strategy: The founder adopted traditional recipe in pastries and sesame oil production and invited pastry chef, Teng Ku from China. To create niche market special targeted large Chinese population in Penang. Enterprise Development: Established Chop Ghee Hiang located at the beach street in Penang. The strategic location at Penang with large Chinese population would help Ghee Hiang to obtain food ingredients from China shifted to Malaya.	First Generation Enterprise Development: Established Chop Ghee Hiang located at the beach street in Penang. The strategic location at Penang with large Chinese population would help Ghee Hiang to obtain food ingredients from China shifted to Malaya.
Second Generation Skill: Interprets tacit knowledge from traditional recipe to produce Tau Sar Piah biscuits and baby brand sesame oil. Top Down: Top management sold to the 4 families, Yap, Yeoh, Ch'ng and Ooi family who after the founder passed away, Ch'ng and Ooi family remained as main decision maker. PUI: Openness to ideas and promoted sesame oil related products distributed into household, restaurant, hawkers center and food operation. Involvement: Ch'ng and Ooi family members bought the minority stake owned by Yap and Yeoh family and solely involved in the production and marketing.	Second Generation Skill: Interprets tacit knowledge from traditional recipe to produce Tau Sar Piah biscuits and baby brand sesame oil. Top Down: Top management sold to the 4 families, Yap, Yeoh, Ch'ng and Ooi family who after the founder passed away, Ch'ng and Ooi family remained as main decision maker. PUI: Openness to ideas and promoted sesame oil related products distributed into household, restaurant, hawkers center and food operation. Involvement: Ch'ng and Ooi family members bought the minority stake owned by Yap and Yeoh family and solely involved in the production and marketing.	Second Generation Strategy: Started to apply semi-auto technology but remained hand-made manual filling to produce uniqueness traditional food stuffs. Produced more products and ventured into the property development to accumulate more capital.	Second Generation Enterprise Development: Established Ghee Hiang manufacturing and Ghee Hiang holding company divided into sesame oil and Tau Sar Piah production. Ghee Hiang holding mostly involved in property development to develop Ghee Hiang Garden.
Third Generation Skill: Interpreted tacit knowledge from the traditional recipe to the Penang heritage	Third Generation Skill: Interpreted tacit knowledge from the traditional recipe to the Penang heritage	Third Generation Strategy: Heavily promoted R & D to conduct sesame	Third Generation Enterprise Development:

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

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

Table 5.9: Analysis Impact of Generational Change on Developing Tacit Knowledge through Innovation

Family Enterprises/Business Nature	Year of establishment/Generation/Succesion	Skill Changes	PUI Changes	Strategy changes after generational Change	Enterprise development (First Generation)	Enterprise development (Next Generation)
1. En Yan Sang (EYS) (Large Enterprise)	1842-2011 (7 th Generation) (Father-Cousin)	Interpreted from physician remedies to scientific herb medicine	Idea from medical hall to TCM retail shop and wellness clinic facilities	Evolved from herbal concoctions to formula for specific ailments	Extended from medical hall to EYS retail shop and TCM clinics	Extended from EYS group to partnership with British Natural Food
2. King Guan (Biscuits) (Large Enterprise)	1857-2011 (7 th Generation) (Father-Nephew)	Interpreted from traditional biscuits to assorted confectionery	Idea from personal biscuits production to access Arnott's food recipe	Evolved from tagged Overseas Chinese to be one Chinese Master	Extended from biscuits factory to King Guan food industries	Extended from King Guan biscuits to Asian finest biscuit production
3. London Biscuit (Biscuits) (Large Enterprise)	1894-2011 (2 nd Generation) (Father-Son)	Interpreted from corn starch to twist wrap instant confectionary food products	Idea from snack food to candies, cakes & egg poultry business trading	Evolved from marketing food trading to export trading	Extended from snack foods to pie cakes and candies production	Extended from pie cake to Southeast Asia largest cake roll production
4. Tatava (Biscuits) (Medium Enterprise)	1981-2011 (2 nd Generation) (Father-Nephew)	Interpreted from hand-made wedding cake to OBI biscuits	Idea from traditional pastries to export biscuits production	Evolved from pastries production to the Tiamie mooncakes production	Extended from family bakeries to Tatava biscuits enterprise	Extended from Tatava biscuits to recognized export based production
5. King's Confection (Cakes & Breads) (Medium Enterprise)	1977-2011 (2 nd Generation) (Father-Son/Daughter-Son)	Interpreted from baker food to pastries and bakeries production	Idea from Hainanese food culture to King's designed pastries and bakeries	Evolved from pastries production to transfer to Singapore food market	Extended from coffee corner to King's confectionary retail chain	Extended from King's to the Pak Halam café, cooperated with Tesco
6. Laksmiana Uda (Noodles) (Medium Enterprise)	1975-2011 (2 nd Generation) (Father-Son/Daughter)	Interpreted from hand-made to clean technology noodle production	Idea from ethnic enterprise to ultra-modern noodle production	Evolved from ethnic based noodles to Malaysian halal noodle production	Extended from home-based cottage production to supply chain enterprise	Extended from baker center to Chinese Muslim restaurant
7. TPC Plus (Egg) (Large Enterprise)	1974-2011 (2 nd Generation) (Brother-Cousin)	Interpreted from poultry egg farming to fruit biotechnology	Idea from poultry egg farming to enzyme vinegar biotechnology	Evolved from poultry farming to enzyme vinegar	Extended from TPC poultry farm to integrated agricultural	Extended from TPC Plus to venture into biotechnology
8. Ye Mahan (Noodles) (Medium Enterprise)	1975-2011 (2 nd Generation) (Father-Son)	Interpreted from food trading to instant noodle production	Idea from local supply chains to the UK Tesco halal food supply chain	Evolved from food business trading to Malaysian halal food supply trading	Extended from Tawarwan food trading to instant noodle	Extended from local food to export based Malaysian halal food
9. Bestface (Chinese Herbs) (Medium Enterprise)	1948-2011 (7 th Generation) (Father-Son/Nephew)	Interpreted from herbal to essence supplements formulations	Idea from herbal trading to essence gifts shop	Evolved from medical hall to GMP essence trading spot	Extended from Chinese medical hall to essence production	Extended from essence factory to export based health foods
10. Silver Cottage (Cakes & Breads) (Large Enterprise)	1984-2011 (2 nd Generation) (Father-Son/Grandson)	Interpreted from dry old chick farming to integrated bakeries and food processing	Idea from integrated poultry chick farming to food processing and bakeries with café retail chain	Evolved from integrated poultry farming to core products retail chain	Extended from poultry farming to core products retail chain	Extended from poultry farming to bakeries café retail chain
11. Ghee Hiang (Sesame oil & Biscuits) (Small Enterprise)	1865-2011 (7 th Generation) (Father-Friends-Family)	Interpreted from traditional recipe to Penang heritage food production	Idea from traditional food stalls to Penang heritage gifts shop and R&D in sesame oil production	Evolved from pastries flagship store to Penang heritage gifts shop and property	Extended from oriental pastries boutique to Ghee Hiang food enterprise and environment	Extended from Ghee Hiang enterprise to Penang tourism gifts shop

Impact of Developing Tacit Knowledge in Food Production through Innovation

Size and Age of Family Enterprise	Generational Change in Innovation Capacities	Strategic Management in Innovation Capacities	Enterprise Development in Innovation Capacities
Large Scale Family Enterprise Food (London, Khong Guan, En Yan Sang, Baker's Cottage, TPC Plus)	From First to the Next Generation Skill: Interpreted knowledge adopted from foreign technology such as British natural food production, Australia Arnott's biscuit formulation and Taiwanese enzyme vinegar. Top Down: Top management given autonomy to engage with professional partnerships, teams work cooperation, flattened organization and mentor mentee programs. PUI: Openness to ideas to create Asian super brands with food fusion such as London Southeast Asia roll cakes, Khong Guan wafer biscuit and EYS scientific health products. Involvement: Mostly involved from local food production to the global supply chain of Asian food production, cooperated with other Asian brands.	From First to the Next Generation Strategy: Evolved from locally-recognized enterprise to Asian firm with unique food product, adopted scientific approach with knowledge sharing to produce natural scientific health supplements, assorted wafer biscuits and Southeast Asia tropical fruit drinks.	From First to the Next Generation Enterprise Development: Established Asian or Southeast Asia brand of food with overseas manufacturing plant, cooperated with foreign enterprise to produce Asian food stuffs catering to non-Asian markets.
Medium Scale Family Enterprise Food (Tatava, Ghee Hiang, King's Confectionery, KLT Food, Laksmiana Uda, Vit Mahan, Besfomec)	From First to the Next Generation Skill: Interpreted knowledge from the current trend to achieve recognition by upgrading value processing chain such as clean technology in noodles production or good manufacturing practice in essence products. Top Down: Top management given enough autonomy to develop R&D and engage in new production and marketing techniques. PUI: Openness to innovative ideas to upgrade value to become superior products such as KLT mooncakes, Fomec health essence and King's pastries. Involvement: Mostly involved in production and marketing to do something different than the previous generation such as IT advancement, franchising business, retailing business or supply chain in global halal food.	From First to the Next Generation Strategy: Evolved from family-owned enterprise to adopt other food cultures from various countries and make it recognized to get accepted in Malaysia food industry such as Japanese Tiamie mooncakes, Hong Kong style KLT foods, Taiwanese Vit's instant noodles and China Fujian oriental pastries.	From First to the Next Generation Enterprise Development: Established locally-accepted food production with different distribution channels upgraded with standard requirements to produce Malaysia-based signature products for export.
Small Scale Family Enterprise	From First to the Next Generation Skill: Interpreted tacit knowledge solely based on	From First to the Next Generation	From First to the Next Generation

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

Conclusion

Generational Change (1st, 2nd & 3rd)

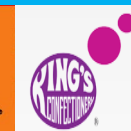
- **From First to Second Generation** : More consultative and run away from generation shadow.
- **From First to Third Generation** : More consensual and mesmerizing tradition excellence
- **Plastic production SMEs** mostly encourage **build on reputation** to **compete** in the marketplace whereby **food 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

