The Hong Kong Toy Industry –
A Qualitative Study

Lam Kin-shing, Kevin
MBA
(Student No. C3171342)

Dissertation submitted to the Faculty of Business & Law,
Newcastle Graduate School of Business,
University of Newcastle
In fulfilment of the requirement for the degree of
Doctor of Business Administration

July, 2015
Declaration

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University’s Digital Repository, subject to the provisions of the Copyright Act 1968.

(Signed) __________________________
LAM Kin-shing, Kevin, C3171342
July, 2015
Acknowledgement

I would like to thank my beloved wife, Agnes, and my sons, Stanley and Chris, for their support and patience extended to me during the course of this Doctoral study. I also want to extend appreciation to my dissertation supervisor Dr. Len Whitehouse for his excellent guidance in accomplishing this dissertation. Additionally I would like to thank the support team of the University of Newcastle, especially the professors who have enlightened me with their quality shared experiences. Their names in the alphabetic sequence are Dr. Gordon Boyce, Dr. Stephen Chen, Dr. Guilherme Pires, Dr. Marcus Rodrigs, Dr. Suzanne Ryan, Dr. Ramaswami Sridharan, and Dr. Hao Tan,

Finally, I thank the six interviewed toy manufacturers for sharing their views about the Hong Kong Toy Industry, allowing this dissertation to contribute meaningful insights to the Toy Industry and others interested in this field.
Table of Contents

Header Page........................................................................................................................................i
Declaration Page....................................................................................................................................ii
Acknowledgement Page........................................................................................................................iii
Table of Contents....................................................................................................................................iv
Abbreviations and Acronyms......................................................................................................................vii
Abstract.....................................................................................................................................................viii

Chapters 1 Introduction
1.1 Introduction, Background and Justification for the Research ..........1
1.2 Research Problem, Research Questions and Contribution ...............2
1.3 Methodology .................................................................................................................................4
1.4 Outline of the research ..................................................................................................................4
1.5 Limitation of Scope and Key Assumptions ........................................6
1.6 Conclusion ..................................................................................................................................7

Chapter 2 Literature Review
2.1 Introduction.................................................................................................................................8
   2.1.1 Background to Hong Kong and Mainland China Toy Industry ...8
   2.1.2 Inadequate Innovation Capability and Technology Skills ...........12
2.2 Research Problem Conceptualization .................................................................13
2.3 Choice of Analysis .....................................................................................................................15
   2.3.1 Transaction Cost Economics .................................................................18
   2.3.2 Toy Industry and TCE ....................................................................21
2.4 The Toy Industry Research .................................................................22
   2.4.1 The Toy Industry Environment ....................................................24
2.5 Political/Legal Dimension .....................................................................................26
2.6 Economic Dimension .........................................................................................31
2.7 Socio-cultural Dimension ...............................................................................44
2.8 Technological Dimension ...................................................................................48
2.9 Strategic Dimension .........................................................................................53
2.10 Gap Analysis and Research Questions ...............................................63
2.11 Conclusion and Contribution ........................................................................67
Chapter 3  Research Methodology

3.1 Introduction .................................................................69
3.2 Methodology .................................................................69
   3.2.1 Qualitative Research Method versus Quantitative Method ......70
3.3 Paradigm Location ..........................................................71
3.4 Choice of Qualitative Research Method – Interviews and Multiple Case Studies ...........................................................73
3.5 Sampling .............................................................................74
3.6 Data Collection Method .......................................................77
   3.6.1 Preparation of Interview Protocol .....................................77
   3.6.2 Interview Questions Design ...........................................78
   3.6.3 Operationalizing the Interviews and Procedures .................80
3.7 Data Analysis and Measurement ............................................81
3.8 Validity and Reliability .......................................................82
3.9 Ethical Consideration ........................................................83
3.10 Conclusion of Research Method ..........................................84

Chapter 4  Analysis of Research Data

4.1 Introduction of the Interview and Research Data Analysis .............85
4.2 Findings from the Six Interviews ...........................................86
   4.2.1 Comparison of OEM and ODM, and the Key Problem of more OEM than ODM .................................................................86
   4.2.2 PESTL and Strategic Dimension of more OEM than ODM ......87
   4.2.3 Norm of Modifying Existing Products, and Reasons ...............89
   4.2.4 Problems Facing Hong Kong Toy Industry and Stakeholders .....90
   4.2.5 Key Factors and Difficulties Affecting ODM ..........................91
   4.2.6 ODM Implementation, Advantages, Problems To Be Overcome .92
   4.2.7 Transaction Costs in ODM and OEM ....................................93
   4.2.8 Conclusion to the Interview Findings ....................................93
4.3 The Workings of OEM and ODM, and Institutional Compliance ........94
4.4 Market and Buyers, Status of Hong Kong Design and Innovation ....98
4.5 Creativity, Technology, Innovation and NPD ..........................103
4.6 Strategic Environment .......................................................105
   4.6.1 The Competitiveness of the Hong Kong Toy Industry ..........105
   4.6.2 Design Idea and Buyers’ Protectionism ..............................107
   4.6.3 “Me too” products, Business Strategy, Transaction Costs and OEM-reliance .................................................................109
   4.6.4 Need of NPD, Fact of Bilateral Dependence and Opportunism ...110
4.6.5 Strategic View of Transaction Costs, Cost Stretching and Option of Investment .................................................................112

4.7 Influences from Government and Institutions .........................................................114
  4.7.1 Hong Kong Government Involvement in Innovation and ODM Support ..........................................................114
  4.7.2 Mainland China Government Involvement ......................................................119
  4.7.3 Transaction Costs, Influence from Government and Institutions .............123

4.8 Profitability, Economics and Innovation .........................................................124
  4.8.1 Cost Stretching Leverage, Supply and Demand, Innovation .................124
  4.8.2 Response from Toy Manufacturers ..............................................................128
  4.8.3 Business Mindset of Toy Manufacturers - Conservative versus Ambitious ...................................................................129

4.9 Contractual Governance and Transaction Costs ........................................131
  4.9.1 Contractual Relationship and Governance, and Transaction Costs in OEM and ODM ..........................................................................131
  4.9.2 Individuals, Bounded Rationality, Opportunism .........................................135

4.10 Conclusion to Analysis of Research Data ......................................................137

Chapter 5 Implication and Conclusion

5.1 Introduction ........................................................................................................138

5.2 Summary of Major Findings, Significance and Propositions ....................138

5.3 Implication ..........................................................................................................148
  5.3.1 Theory Implication .......................................................................................148
  5.3.2 Managerial Implication ...............................................................................151

5.4 Limitation and Implication for Future Research ...........................................153

5.5 Conclusion .........................................................................................................154

References ............................................................................................................156

Appendices

Appendix 1 Participant Information Statement .....................................................182
Appendix 2 Participant Consent Form ................................................................186
Appendix 3 Interview Protocol .............................................................................188
Appendix 4 Approval from Human Research Ethics Committee of the University of Newcastle Australia ..........................................................192
Appendix 5 Answers to Interview Questions .......................................................196
Abbreviations and Acronyms

Below is the quick reference of some key abbreviations and terms often used.

FFF: Porter’s Five Force Framework
FKHI: Federation of Hong Kong Industries.
GDP: Gross Domestic Product.
GPRD: Greater Pearl River Delta of China
HKTDC: Hong Kong Trade Development Council.
ICTI: International Council of Toy Industries
NPD: New Product Development.
NVIVO: An analytic tool for the research from QSR (2014).
OBM: Original Brand Manufacturing
ODM: Original Design Manufacturing
OEM: Original Equipment Manufacturing
PCF: Participant Consent Form
PESTL: Political/Legal, Economic, Socio-cultural and Technological
PIS: Participant Information Statement
PRD: Pearl River Delta of China
R&D: Research and Development.
RMB: Renminbi, the currency of China.
ROI: Return On Investment.
SME: Small and Medium-sized Enterprise.
SOE: State-owned Enterprise.
TCE: Transaction Cost Economics
TFP: Total Factor Productivity
Xinhuanet: An on-line communication platform and an important information organ of the China central government under Xinhua News Agency
Abstract

This is a qualitative study of the Hong Kong Toy Industry and its close association with Mainland China production, where there exists the behaviour of more OEM involvement than ODM. The study commences with: (a) a literature review that examines the relevant articles in PESTL and the strategic dimension, together with Transaction Cost Economics as the mainstream theory; (b) semi-structured interviews with six toy manufacturers to obtain primary data, in order to identify the factors influencing OEM-reliant behaviour and to determine the root of the problem in the Toy Industry. There are discussions of the inadequacy of and barriers to innovation and ODM development, encompassing: (a) manufacturers’ conservative mindset of risk avoidance for the costly investment involved, exposing uncertain market design acceptance; (b) manufacturers’ constraint in innovative idea acquisition and corporate capability; (c) economic, government and institutional environment; (d) the strategic environment of customers’ strong bargaining power over toy manufacturers in a bilaterally dependent contractual relationship; and (e) keen competition at all levels. Opportunistic behaviour is observed between customers and manufacturers for maximizing benefits, as well as within manufacturers’ personnel who may pursue goals deviating from the company direction. The role of transaction costs in the ex-ante investment alignment and ex-post governance is found to be crucial for toy manufacturers in deciding their involvement in ODM or OEM. The need for serious innovation and government support with appropriate alignment has emerged, and are important to sustain the competitive advantage of the Hong Kong Toy Industry. This study presents 11 propositions and suggests further research opportunities.
Chapter 1 Introduction

1.1 Introduction, Background and Justification for the Research

This study relates to the Toy Industry of Hong Kong where there is strong association with Mainland China manufacturing facilities. The evolution of the Hong Kong Toy Industry can be traced back from the physical manufacturing of toys ‘Made in Hong Kong’ to its current servicing role, featuring a bilaterally dependent relationship with Mainland China as the production hinterland for toys that are ‘Made in China’ (Chan, Chin & Lam, 2007; HKTDC, 2013).

In the last three decades, Hong Kong has become the world’s leading toy exporter (Luk, Noori & Leung, 2004; HKTDC, 2013). Mainland China, possessing 20 percent of the world’s population and being the world’s second-largest economy, has become a ‘World Factory’ with outstanding productivity performance (Zhang, Huang & Liu, 2012; Zhu, 2012). This productivity has increased significantly since 1978 when Mainland China adopted the policy of Gaige Kaifang (reform and open) and opened its doors to the world bringing in capitalism, technology and foreign investments (Coase & Wang, 2013; Zhu, 2012).

Hong Kong had been under British rule for approximately 150 years, and returned to China sovereignty in 1997 under the doctrine of ‘one country, two systems’ (Xinhuanet, 2014a). This was unprecedented and drew worldwide attention to whether Hong Kong could maintain its prosperity under China’s administration. The Hong Kong Toy Industry continues to benefit from Mainland China’s open policy, attracting
many Hong Kong toy manufacturers to relocate their production facilities to Mainland China, with its vast workforce and lower manufacturing costs. China presently produces approximate 75 percent of toys worldwide (FHKI, 2010).

1.2 Research Problem, Research Questions and Contribution

The Chinese toy manufacturing industry has adopted three manufacturing strategies: (a) Original Equipment Manufacturing (OEM) in which a manufacturer produces toys under a customer’s label according to the customer’s design; (b) Original Design Manufacturing (ODM) in which a manufacturer produces toys under a customer’s label but the toys are designed by the manufacturer; and (c) Original Brand Manufacturing (OBM) in which a manufacturer designs, produces and markets its own branded products (HKTDC, 2008). The Hong Kong Trade Development Council (HKTDC) published a survey reporting that 91 percent of Hong Kong toy manufacturers undertake OEM while 68 percent undertake ODM (HKTDC, 2013). The percentages are based on the responses from toy manufacturers, some involving manufacturers with both OEM and ODM, and some involving manufacturers with OEM only. Sun and Wing (2005) state that the OEM-reliant Hong Kong Toy Industry reflects its inadequacy in innovation, and insufficient ODM hinders the development of the industry’s prospects and brand building. This study attempts to determine the factors influencing this phenomenon, and to diagnose the problems existing in the Hong Kong Toy Industry. Transaction cost is used as the mainstream theory to guide the research dissertation.
The Research question and sub-questions are:

**RQ1:** What are the key factors influencing the Hong Kong Toy Industry which involves more OEM than ODM?

**RQ1.1:** For the Hong Kong Toy Industry being more OEM-focused, what are the key reasons?

**RQ1.2:** For the Hong Kong Toy Industry that undertakes more OEM than ODM, what are the key problems?

**RQ1.3:** For the propensity of Hong Kong toy manufacturers to invest in ODM, what are the key factors?

**RQ1.4:** For Hong Kong toy manufacturers developing ODM, what are the major difficulties they encounter?

**RQ1.5:** When the Hong Kong toy manufacturers encounter difficulties in ODM operation, what can they do?

Through the research and identification of the factors influencing the Hong Kong Toy Industry, it is expected this study can contribute to the Toy Industry and its stakeholders by identifying problems areas, so that corrective measures and improvements can be devised. Where factors cannot be resolved, the stakeholders will become aware of their existence and will be able to react to these impacts, either to
improve the situation or prevent it from becoming worse. The study also includes insights and suggestions for the sustainability of the Hong Kong Toy Industry.

1.3 Methodology

Six qualitative semi-structured in-depth face-to-face interviews are used to collect primary data from six toy manufacturers selected from the International Council of Toy Industries (ICTI) factory database. The sampling method is non-probability. Qualitative interviews provide rich and abundant data, which is important to reflect the real world experienced by toy manufacturers, to enhance reliability and formulate propositions (Appleton, 1995; Crouch & McKenzie, 2006; Doz, 2011). The methodology adopts interpretive and positivist paradigms, and is an exploratory approach to determine meaning from the interview data (Bunduchi, 2008; Hassard, 1991; Myers, 1997). The data collected is analysed using NVIVO (QSR, 2014), allowing the thematic meaning to emerge through node functions and cross-case comparisons.

1.4 Outline of the Research

This qualitative study is presented in five chapters. Chapter 1 is an ‘Introduction and Background’ that describes the study and why it was undertaken. It identifies the phenomenon of the Hong Kong Toy Industry exhibiting more OEM than ODM as the research problem, defines the research questions, and outlines the method and process of the research.
Chapter 2 is a literature review of the Toy Industry in Hong Kong and Mainland China. The review encompasses the background and history of the Hong Kong Toy Industry, and the evolution of the Toy Industry in Mainland China involving major investments from Hong Kong, leading to the current situation of with more OEM than ODM, and what this means. There are environmental (political, legal, economic, socio-cultural and technological) and strategic influences, endogenous and exogenous factors, and justification of theories to guide this research. The main theory is Transaction Cost Economics (TCE), through which the study identifies research gaps where: (a) the Toy Industry environment is very competitive in price and profitability; (b) leverage between manufacturers and buyers is difficult; (c) government and institutional influence over the Toy Industry is strong, but toy manufacturers do not receive adequate support; (d) toy manufacturers have a conservative mindset and also there is the dilemma of ambition versus ability; and (e) innovation and greater ODM involvement aims to improve Toy Industry prospects. These research gaps are further substantiated to formulate the research questions.

Chapter 3 documents the research methodology, listing how the qualitative study is undertaken, including the sampling method, justification for qualitative interviews, primary data collection and data analysis with NVIVO (QSR, 2014), along the pathway of the Theory Building Ladder model of Doz (2011). The qualitative research also considers reliability and ethical aspects, with advance notice of invitations, interview protocols and assurances that interviews do not cause harm to people.

Chapter 4 presents an analysis of the research data, reporting the findings from the interviews, information and data collected, together with the significance of each
interview question. The summarized interview data is further categorized into sections of topics for discussion. The sections include: (a) OEM and ODM; (b) institutional compliance; (c) markets and buyers; (d) Hong Kong design and innovation status; (e) the rationale of creativity and innovation; (f) environmental and strategic factors challenging the Toy Industry; (g) government and institutional influences affecting the Toy Industry; (h) toy manufacturers’ profitability; and (i) contractual governance. Transaction cost study is used to discern the motives of toy manufacturers, the factors affecting decisions relating to OEM or ODM, power leverage, cost stretching between buyers and manufacturers, and human opportunism.

Chapter 5 presents implications and conclusions, and describes and critiques the findings from the research. A summary of the research is presented, together with 11 propositions of benefit to the Toy Industry in Hong Kong. Also there are: (a) theory implications of how theories are related and applied in the current study, including the interface of transaction cost theory with the analysis; and (b) managerial implications from the 11 propositions from the study relating to more OEM involvement than ODM, barriers restricting innovation and ODM, insufficient and misaligned government support and the mindsets of toy manufacturers. Government support is emphasized in both theory and managerial implications. Finally, future research topics are proposed.

1.5 Limitation of Scope and Key Assumptions

This paper is limited to a study of Hong Kong toy manufacturers with investments and manufacturing facilities in Mainland China. Overseas companies that establish manufacturing plants in Mainland China are not included in the research.
Manufacturers selected as samples for interview are found from the ICTI database to ensure legitimacy and formal registration in Hong Kong or Mainland China, to ensure the reliability of the data. The number of employees in ICTI database factories fluctuates due to peak and low seasons of production (ICTI, 2012). However, this study is based on qualitative research data from in-depth interviews, not on quantitative data. All of the interviewees are proprietors or company directors, and they have the capacity to provide informative answers based on their experience in the Toy Industry.

### 1.6 Conclusion

This qualitative study of the Hong Kong Toy Industry is an attempt to delve into the real world problems experienced by the toy manufacturers, as the Toy Industry is one of the most important industries in Hong Kong and Mainland China. It is expected the research findings will contribute to the Toy Industry stakeholders, providing new knowledge of the Toy Industry to enhance the toy manufacturers’ sustainability. This study also contains suggestions to the toy manufacturers, Toy Industry associations and governments of areas within the Toy Industry which require support.
Chapter 2  Literature Review

2.1  Introduction

This study relates to the Hong Kong Toy Industry which has a close association with manufacturing plants in Mainland China. The chapter commences with an introduction to the Toy Industry environment of Hong Kong and Mainland China. It identifies China’s lack of serious innovative skills and technology development, and observes that the Toy Industry focuses on OEM more than ODM to analyse and explore problems occurring in the Hong Kong Toy Industry. Analysis methods for the study are investigated together with literature relating to the Toy Industry (including the manufacturing and servicing dimensions), leading to gaps identifying real world managerial problems which converge into research problems and research questions.

2.1.1  Background to Hong Kong and Mainland China Toy Industry

The Toy Industry is a major manufacturing industry in China (Lau, Tang & Yam, 2010). The key activities of the Toy Industry include product design, handling components, production assembly, logistics, sales and marketing, and customer service (Chung, Yam & Chan, 2004). Hong Kong toy manufacturers are well-known for their high quality OEM production and service, and attract many overseas customers and licensors (Chan, Chin & Lam, 2007). OEM is defined as production based on customer-provided designs (Chan, Chin & Lam, 2007; HKTDC, 2008). Another popular form of manufacturing is ODM where manufacturers design and produce products directly for customers. Some ODM manufacturers extend this process to
OBM and market their own branded products (HKTDC, 2008; Luk, Noori & Leung, 2004; Sun & Wing, 2005). The Toy Industry is one of the oldest and largest export industries in Hong Kong (Sun & Wing, 2005). In 2004, Hong Kong was the world’s largest toy exporter (Luk, Noori & Leung, 2004), and is presently a leading world toy exporter (Sun & Wing, 2005; HKTDC, 2013).

Most Hong Kong toy companies now produce their products in Mainland China. This production shift occurred after China announced its open door policy in 1978 (Liu, Wang & Yip, 2013). Hong Kong toy manufacturers were experiencing rising local manufacturing costs while Mainland China had an abundant supply of cheap labour and low-cost manufacturing opportunities. This attracted many Hong Kong manufacturers to move their production facilities to Mainland China, changing the role of Hong Kong toy companies to non-manufacturing import/export establishments focusing on product design, production planning, marketing, quality control and management (Chan, Chin & Lam, 2007; HKTDC 2013; Luk, Noori & Leung, 2004; Sun & Wing, 2005). Some Hong Kong toy manufacturers sub-contract production to factories they partner in Mainland China, and undertake R&D and other innovative processes in Hong Kong (Lau, Tang & Yam, 2010). Most Hong Kong toy companies relocated their factories to the Pearl River Delta (PRD) of Guangdong province (Chan, Chin & Lam, 2007; Yam, Lo, Tang & Lau, 2011; Zhang, Huang & Liu, 2012). PRD has become a world famous manufacturing hub (Liu, Wang & Yip, 2013; Chan, Chin & Lam, 2007). When Hong Kong combined with PRD to form an integrated supply chain system, it became known as the Greater PRD (GPRD) of China (Zhang, Huang & Liu, 2012).
The Toy Industry is one of the most competitive industries in the world (Mok, Yeung, Han & Li, 2007). According to the Federation of Hong Kong Industries (FHKI), China produces approximately 75 percent of toys worldwide (FHKI, 2010), and about 70 percent of Chinese toys are manufactured in the Guangdong province (Peng & Chen, 2011). Prior to 2001, when China entered the World Trade Organization (WTO), the rapid growth of production and export business led China to become known as the ‘World Factory’, producing goods that are: (a) easy-to-manufacture; (b) low-tech; (c) highly standardized; and (d) labour intensive (Dallas, 2014; Zhang, Huang & Liu, 2012).

The China’s Gross Domestic Product (GDP) ranked top with an average 10.23% growth annually from 2005 to 2013 (see Figure 2-1).
Zhu (2012) states that high GDP growth in China is attributed to strong accumulated productivity since the Gaige Kaifang in 1978, bringing China (with 20 percent of the world’s population) to become the world’s second-largest economy. The China manufacturing industry accounts for one-third of the total China GDP (Zhao, Huo, Flynn & Yeung, 2008). Guangdong province alone recorded an annual GDP growth of over 14 percent in the past decade, equivalent to about half of the total GDP growth in China (Wang, Appelbaum, Degiuli & Lichtenstein, 2009). The manufacturing industry is very important to China and affects Hong Kong significantly. China’s export-oriented industries adopted Hong Kong as a gateway port handling 90 percent
of China’s container goods between 1980 and 1994. Hong Kong became the world’s busiest port between 1986 and 1996 (Liu, Wang & Yip, 2013). Manufacturing industries in PRD involve about 10 million domestic Chinese employees. Their related operations, trade, logistics and other supporting services affect over one million jobs in Hong Kong, representing 37 percent of Hong Kong’s GDP in 2007 (Zhang, Huang & Liu, 2012). Almost 50 percent of foreign direct investment in Mainland China is from Hong Kong (Zheng, Bigsten & Hu, 2009). These major economic and business relationships closely bind Mainland China and Hong Kong together, and bilaterally benefit each other.

2.1.2 Inadequate Innovation Capability and Technology Skills

On April 29, 2014 the former U.S. Federal Reserve chairman, Alan Greenspan, stated that China needs to enhance innovation to retain its competitive edge, as Chinese industries “have been so successful for so long without being significantly innovative themselves” (Chinadaily.com.cn, 2014). Dr. Greenspan also points out that, although China is the world’s second-largest economy, it relies on borrowed technology to support its productivity growth. There are no Chinese companies among the world top 100 innovative companies (Chinadaily.com.cn, 2014). None of the world’s top 100 brands is from China (Zheng, Bigsten & Hu, 2009). China’s fundamental problem of brand building is a lack of innovation (Coase & Wang, 2013), because China’s innovation development is immature (Yam, Lo, Tang & Lau, 2011). These criticisms have a direct influence on the Hong Kong Toy Industry because of the close relationship between Hong Kong and Mainland China, in particular, the toy companies’ investments in Mainland China (Zhang, Huang & Liu, 2012). The HKTDC
has surveyed the Toy Industry of Hong Kong and reports that 91% of toy manufacturers undertake OEM while 68% undertake ODM (HKTDC, 2013). Sun and Wing (2005) state that OEM-focused Hong Kong toy manufacturers are inadequate in innovation. Insufficient ODM hinders the development of the Hong Kong Toy Industry and Hong Kong brands. Hong Kong toy companies should work hard on innovation, invest more in R&D, and enhance their own design capabilities to sustain a competitive advantage over manufacturers in Asian countries and new domestic China manufacturers (FHKI, 2010; Sun & Wing, 2005).

2.2 Research Problem Conceptualization

The relocation of manufacturing from Hong Kong to Mainland China provides each with a cost advantage and business growth (Chan & Chin, 2007; Yam et al., 2011). Hong Kong became part of China on July 1, 1997 and Hong Kong and Mainland China remain important trading partners (Xinhuanet, 2014a). The Premier of China, Mr. Li Keqiang, has announced support for Hong Kong in the development of innovative technology and the strengthening of science and technology exchange between Hong Kong and Mainland China (ASTRI, 2012). In Hong Kong, the Innovation and Technology Commission was established in 2000 to support R&D and innovation within Hong Kong industries (ITC, 2014).

The Innovation and Technology Fund (ITF, 2014) and the Hong Kong Science and Technology Parks Corporation (HKSTP) foster a culture of innovation and technology development, and provide support and funding for laboratory services, offices, R&D and consultancies (HKSTPC, 2014). In addition, the Hong Kong Applied Science and
Technology Research Institute Company Limited (ASTRI) was established in 2000 to facilitate the growth of technology transfer and applied research within Hong Kong industry, and to establish a Shenzhen office to cultivate business in Mainland China (ASTRI, 2014). Prior to 1967, the Hong Kong Productivity Council (HKPC) promoted industry productivity competitiveness and sustainability in manufacturing sectors of Hong Kong, and established offices in Shenzhen, Dongguan and Guangzhou to support Hong Kong manufacturers, emphasizing more effective use of resources and innovation (HKPC, 2014; ITC, 2014).

Innovation and technology cooperation between Hong Kong and Mainland China exists, for example, the State Ministry of Science and Technology (MOST) and the Hong Kong Government have formed: (a) the ‘Mainland and Hong Kong Science and Technology Cooperation Committee’ to exchange and formulate technology collaboration; (b) the ‘Guangdong/Hong Kong Technology Cooperation Funding Scheme’; and (c) the ‘Shenzhen/Hong Kong Innovation Circle’ to provide funding, resource sharing and technical assistance to industry (ITC, 2014). The Hong Kong branch of the Chinese National Engineering Research Centre in a joint project between City University of Hong Kong and Tsinghua University of China was established to facilitate technology exchange (CityU, 2014) and to enhance Hong Kong’s participation in Mainland China’s national science and technology program (Xinhuanet, 2014a). Sixteen Partner State Key Laboratories and two National High-Tech Industrialization Bases were established in Hong Kong as part of this China-Hong Kong technology exchange (Xinhuanet, 2014a). The Intellectual Property Department (IPD) was established to foster creativity and talent development in Hong
Kong by providing registration services for patents, trademarks and designs, and to promote public awareness and respect for intellectual property rights (IPD, 2014).

With several supporting services and schemes promoting technology and innovation, and laws to protect intellectual property, why is there still criticism about insufficient innovation and R&D? What are the factors influencing the Hong Kong toy manufacturers to introduce more OEM than ODM? What are the barriers hindering the Toy Industry to access and develop innovation and technology? Wang, Singh, Samson and Power (2011) express the opinion that the study of industry in China (upon which Hong Kong relies) must be current, as the environments are changing rapidly. Hong Kong is a world leading toy exporter, bilaterally dependent upon Mainland China and also in a competitive relationship with Mainland China, both of which involve substantial employment and national income levels. However, there is a lack of contemporary study for such an important industry. Based on (a) the lack of innovation capability, (b) OEM-focused rather than ODM behaviour, and (c) barriers to implement innovation and technology, this research attempts to identify such factors and diagnose problems in the Hong Kong Toy Industry.

2.3 Choice of Analysis

Chan, Chin and Lam (2007) state that Chinese industry exhibits complex factors which interfere with one another. With similar complexity, the choice of appropriate analysis methods is crucial to understanding the Toy Industry. A political factor (for example, Renminbi ‘RMB’ internationalization) can encompass economic (financial and currency market), technological (acquiring technology and expertise) and other
factors, all of which influence each other. Analysis making use of appropriate theory is important because theory guides, specifies and explains important variables and relationships (Klein & Zedeck, 2004).

The Porter Five Force Framework (FFF) is widely used to determine an industry’s competitive environment and ultimate profitability in terms of: (a) buyers’ bargaining power; (b) suppliers’ bargaining power; (c) threat of potential entrants; (d) threat of substitutes; and (e) rivalry among competitors (Narayanan & Fahey, 2005; Porter, 1998). Narayanan and Fahey (2005) question the validity of Porter FFF for emerging economies. Mainland China, as an emerging economy which Hong Kong has relied on for production, may not be able to provide a confident governance structure and stable institutional system sufficient for business exchanges in contrast to the Porter FFF competitive market environment (Narayanan & Fahey, 2005). Costs are incurred due to uncertainty, risk, information gathering, negotiating and monitoring contractual implementations (Coase, 1960; Narayaman & Fahey, 2005: Williamson, 2010). Narayanan and Fahey (2005, p. 213) state that the Porter FFF “is silent on transaction cost … the influence of transaction cost may be too significant to be ignored in emerging economies”.

Resource-Based View (RBV) is a popular model to explain whether a firm possesses a sustained competitive advantage by asking “is that resource valuable, is it rare, is it imperfectly imitable, and are there substitutes for that resource” (Barney, 1991, p. 115). Priem and Butler (2001) challenge RBV by stating that it lacks law-like generalization unlike the empirical requirement of a theory. Priem and Butler (2001) quote the example of a firm’s data storage, while being a valuable resource, does not warrant
profitability, so the resource value is not determined by internal RBV but through a market environment system exogenous to RBV.

Institutional theory explains the action of individuals and organizations (Dacin, Goodstein & Scott, 2002) stating that organizations need to conform to institutional requirement to earn legitimacy (Connelly, Ketchen Jr. & Slater, 2011). Kostova, Roth and Dacin (2008) argue that a firm may strategically choose or, under the influence of agents, adopt local practices beyond a normal logical or rational manner, unlike external isomorphic compliance for legitimacy or survival. Kostova, Roth and Dacin (2008) substantiate that evolving institutional systems and environments are not static. The social agents (external and internal) are central to institutional process (Kostova, Roth & Dacin, 2008). Williamson (2010) recommends incorporating operational content into an ‘interface’ study, where individuals with bounded rationality and organizations in ‘maladaptation process with uncertainty’ incur transaction costs (Coase, 1960; Williamson, 2010).

From the study of these three models (in terms of industry, firm, individual and institutional environments), some important concepts are found to have been neglected. These include: (a) transaction costs; (b) exogenous and strategic factors; and (c) social-relational influence. Organizations are seeking orderly governance to cope with uncertainty and complex contracting relating to external or hierarchical Hong Kong-China manufacturing structures. Some parties are mutually dependent with common interests, but they also generate conflicts that need to be resolved. The existence of ‘order, dependence and conflict’ is the view of Commons (1932a, 1932b) and Williamson (2010) who use transactions as the unit of analysis. Coase (1960) and
Williamson (2010) state that activities between interfaces have a cost. Coase (1960) contends that the validity of traditional concepts concerning self-regulatory economic systems work through pricing systems. If coordination is required for production and management, then the mainstream economics belief (that price systems can perform this coordination) is not correct (Coase, 1992, 1998). Coase (2012) states that business leaders seek government political power to solve difficult economic problems ranging from innovation to employment. The rise of market economies like China has already explained the existence and the result of increasing institution-intensive influence. Factors from history, culture, society and politics are challenging the inadequate explanation of ‘price theory’ and traditional economics (Coase, 2012). Coase (1998) states that such oversight resembles studying the circulation of blood without a body. Coase (1992) asserts that involvement is required in these activities and that transaction costs exist, encompassing: (a) negotiation; (b) contracting; (c) inspections; (d) arrangements; (e) settling disputes; and (f) governance monitoring. These are costly and imperfect in many ways.

2.3.1 Transaction Cost Economics

The New Institutional Economics, which is a synonym for Transaction Cost Economics coined by Ronald Coase and Oliver Williamson, questions the sceptical classical economic theory on efficiency (Medema, 2010). Coase’s article “The Nature of the Firm” is widely regarded as the path-breaking conceptualization of transaction costs (Coase, 1937; Williamson, 2010). Coase (1937) poses the question that if market cost is the reason for firms to exist, why is there not a single very large firm to handle all production? Coase (1988) explores the factors determining the boundary of the firm
and questions why there are so many transactions if the price system is so efficient. The development of transaction cost theory has been difficult but there was a turning point in 1960 with a famous debate of twenty Chicago economists arguing with Coase on topics including taxes, government policies and property rights in the market, leading to arguments of efficiency, social costs as a result of one policy inflicting harm on others and the reciprocal problem of resource allocation. Coase was a minority of one but eventually won over all attending economists including Milton Friedman, George Stigler and Aaron Director (Coase, 1993, 2003; Hahn, 2013; Schwartz, 2014). Coase (1960) challenged the problematic concept that the market can be ‘taken for granted’, and refuted ‘zero transaction costs’ associated with activities of: (a) who is involved; (b) with whom one deals; (c) negotiations; (d) bargaining; (e) contracting; (f) inspections; (g) monitoring; and (h) coordination. The transaction costs involved in these activities can be high, to the extent that they may prevent the transactions taking place (Coase, 1960; Schwartz, 2014).

Market transactions are not free but come with their costs (Coase, 1960; Williamson, 2010). Coase finds it is the avoidance or reduction of transaction costs that is used to explain: (a) why firms exist; (b) why in-house production compared with obtaining goods from the market; and (c) why many economic systems are difficult to explain when neglecting transaction costs (Coase, 1992, 1998). Coase (1992, p. 716) asserts “if the costs of making an exchange are greater than the gains which that exchange would bring, that exchange would not take place”.

Williamson (1985) categorizes transaction costs into two types: (a) ‘ex-ante’ refers to searching, drafting, negotiating and safeguarding before contractual agreements; and
(b) ‘ex-post’ refers to contracting, maladaptation and haggling associated with the operating governance structure (Williamson, 1985; Zhao et al., 2008). Williamson (1981, p. 552) states that “Transaction occurs when a good or service is transferred across a technologically separable interface … The economic counterpart of friction is transaction cost”. A firm as a governance structure is contractual in nature. Such contracting allows efficient economic exchange but is often influenced by transaction characteristics (Williamson, 1981, 2002, 2010). Transaction characteristics include the dimensions of complexity, asset specificity and disturbance of the transactions (Williamson, 2010). The disturbance is from: (a) contracting errors, gaps or omissions; and (b) human errors associated with bounded rationality and opportunistic behaviour. It causes costly hold-ups, maladaptation and renegotiation which are the key reasons leading to incomplete contracting (Williamson, 2002). Transaction cost economizing is crucial to all types of organizational governance, “governance structures that have better transaction cost economizing properties will eventually displace those that have worse” (Williamson, 1981, p. 574).

Contractual governance requires studying the outlier disturbance condition and asset specificity (Williamson, 2010). There are three types of asset specificity, namely: (a) ‘site specificity’ relates to location; (b) ‘physical asset specificity’ refers to the setup for production of goods or services; and (c) ‘human asset specificity’ is the ‘people’ characteristic especially ‘when learning by doing’ (Williamson, 1981). The degree of asset specificity influences the decision of either obtaining from the market or internally within the hierarchical structure, and affects the complexity of contracting and transaction types (Williamson, 1981, 2002, 2010). Highly specific investment binds the buyer and seller together in a bilateral relationship because the cost of
changing is very large (Williamson, 1981). TCE attracts much debate, many citations and significant empirical examination (Williamson, 2010). Coase and Williamson were Nobel Prize laureates in 1991 and 2009 respectively (Nobelpri ze.org, 2014) and that has had a catalytic effect in mobilizing TCE development.

2.3.2 Toy Industry and TCE

Manufacturing industries in China involve complex factors which interfere with each other (Chan, Chin & Lam, 2007). It is a dynamic environment and its complexity results in market uncertainty (Shou, Yang, Zhang & Su, 2013). The analytical tool, Transaction Cost Study, is frequently used in manufacturing industries to determine whether they should adopt in-house production or external contracting (Qu & Brocklehurst, 2003) and to evaluate which goods and services to produce (Coase, 1960, 1992). OEM and ODM require different resources and operating mechanisms. Asset specificity (ODM and OEM require different deployment of designers, engineers, tools and equipment), uncertainty (ODM and OEM face some different uncertainties) and different transactions affect an organization and its governance structure (Williamson, 2002). When a toy manufacturer deploys ODM in an operation or extends ODM from OEM, the added governance mechanism increases transaction costs (Zhao et al., 2008). TCE brings strategic considerations into economics to craft governance structure and to align incentives for exchange needs (Williamson, 2002). There are many factors (whether environmental, strategic or operational) interacting and affecting each other at different interfaces. These interfaces, which define transaction costs, are the ‘friction’ identified in Williamson (1981). These interfaces guide the direction of the research.
2.4 The Toy Industry Research

The Chinese toy industry is characterized by toy firms that are diverse in size, ownership and resources (Peng & Chen, 2011). The ICTI is a not-for-profit organization promoting ethical toy manufacturing and toy safety. Many toy firms and major overseas retailers regard ICTI certification as a toy manufacturing facility’s minimum requirement (ICTI, 2014a, 2014b; Meehan, Meehan & Richards, 2006). Most toy factories in the ICTI database employ fewer than 500 employees (83.5% of total factories) (ICTI Care, 2014), though some toy manufacturers own more than two factories. See Figure 2-2 below for statistics from the ICTI database.

Figure 2-2 Statistics from ICTI Factory Database

<table>
<thead>
<tr>
<th>No. of employees hired</th>
<th>Factory count</th>
<th>Factory %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 10000 employees</td>
<td>2</td>
<td>0.1%</td>
</tr>
<tr>
<td>5000-9999 employees</td>
<td>5</td>
<td>0.2%</td>
</tr>
<tr>
<td>2500-4999 employees</td>
<td>26</td>
<td>1.1%</td>
</tr>
<tr>
<td>1000-2499 employees</td>
<td>140</td>
<td>6.0%</td>
</tr>
<tr>
<td>500-999 employees</td>
<td>212</td>
<td>9.1%</td>
</tr>
<tr>
<td>Less than 500 employees</td>
<td>1950</td>
<td>83.5%</td>
</tr>
<tr>
<td>Total:</td>
<td>2335</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

ICTI Factory Database - Factory Registrant and Employee Counts
Source: Adapted from ICTI Care (2014) Factory Database.

Most toy manufacturers operate as OEMs, with fewer ODMs and OBM (Luk, Noori & Leung, 2004). Toy manufacturers adopting OEM enjoy the advantages of:
(a) avoiding costly R&D; (b) lower cost sales and marketing; (c) minimizing the risk of product rejection; (d) avoiding development failure; and (e) better resource
utilization to achieve economies of scale. OEM competition is an on-cost which is less promising in the long run (HKTDC, 2008; Sun, Wong, Zhao & Yam, 2012; Zhang, 2011). Products manufactured through ODM and OEM are marketed under customer labels, but ODM differs from OEM in that ODM incurs a high involvement in R&D and design. A toy company possessing its own design capability and not relying on customer resources is more promising in the long term (HKTDC, 2008; Sun & Wing, 2005). Having its own capability of design and R&D affects a toy company’s competitiveness in the Toy Industry. However, having such important skills to sustain competitive advantage is not highly regarded by the toy manufacturers.

Mok et al. (2007) state that China relies on cheap labour instead of technical efficiency to sustain performance in its manufacturing industry. Mok et al. (2007) also express concern that reliance on cheap labour is a weakness in China’s manufacturing industry. When China no longer has a low labour cost advantage, its inadequate technical efficiency and lack of innovation capability will leave it with nothing to sustain its toy manufacturing sector. According to a Chinese Manufacturers' Association of Hong Kong (CMA) survey in 2008, when China no longer has a low-cost benefit, 36.3 percent of respondents said they will relocate their production from the PRD region to either the northern part of Guangdong and Hunan provinces or other Asian regions (Liu, Wang & Yip, 2013). Toy manufacturers are facing greater uncertainty and cost challenges. OEM-focused industry advantages may not be durative and profitable, and such advantages may be challenged by economic growth, rising labour costs, currency fluctuations, stringent environmental protection rules and keen competition (Zhang, 2011). Yam et al. (2011) observe that most toy manufacturers do very little to acquire external marketing knowledge, and their sources of such knowledge are usually from
their customers or suppliers. Even though some toy firms have introduced OBM in parallel to OEM, or have used OBM production to increase sales, it is not necessarily promising (Zhang, 2011).

The toy market is very competitive worldwide. According to HKTDC (2014), toy exports through Hong Kong fell by 19 percent in 2013 compared to 2012, most likely due to worldwide economic factors. For these exported toys, traditional toys constituted 54 percent (a fall in sales of 6 percent) while electronic and video games constituted 46 percent (a fall in sales of 30 percent). The reduction in electronic and video games was due to keen competition from smart phones and computer tablets with games capability (HKTDC, 2014).

2.4.1 The Toy Industry Environment

It is difficult for a firm to innovate internally, as innovation requires interaction with representatives from government, institutions, customers, competitors, and suppliers, such interaction being inclusive of social and cultural factors (Yam et al., 2011). Sun et al. (2012) define the process of innovation as starting with a creative idea which then leads to specific idea generation, screening and implementation. Sun et al. (2012) are concerned with different resource alignments and a favourable environment supportive to innovation. New product development (NPD) is country-specific, but the successful factors for mobilizing NPD in manufacturers are industry-specific (Sun & Wing, 2005). For mature markets like the U.S.A. and Europe, brands and ideas exist that are difficult for new entrants to match (HKTDC, 2008). A firm can enhance its R&D capability by acquiring external information like patents or by cooperating with
external organizations that function as a bridge to innovation (Yam et al., 2011). All of these methods for deploying innovation have a cost, and there are also costs for patent and intellectual property protection. Such costs may be difficult for small firms to afford (Lau, Tang & Yam, 2010).

From governmental and institutional perspectives, there are already several supporting schemes and services available to the Toy Industry. More importantly, the China central government announced its support for innovation and R&D in the GPRD (Xinhuanet, 2014a). However the Toy Industry is more OEM focused than ODM (FHKI, 2010; HKTDC, 2013; Sun & Wing, 2005), and those toy manufacturers wishing to develop more ODM are unable to, because of constraints preventing the toy companies from receiving institutional support which would allow them to improve innovation and technical capability. ODM and innovation require monetary investment and expertise (Sun & Wing, 2005; Sun et al., 2012). Environmental and institutional conditions (e.g. the availability of information, resources, technology and systems) are also important (Yam et al., 2011).

To identify and gather literature relating to the Toy Industry and the factors influencing the Toy Industry, the PESTL model (with political/legal, economic, social, and technological dimensions) helps to identify the macro-context (Bayerl et al., 2013). Wang et al. (2011) add a strategic dimension to the PESTL model, together with transaction cost theory.
The political environment (including rules and government policy) affects the innovation development of a region (Yam et al., 2011). The political environment in China is changing rapidly (Wang et al., 2011). Coase and Wang (2013, p.837) state “what is happening in contemporary China strongly affects the whole world”. Coase and Wang (2013) also state that the era of the ‘Great Leap Forward’ and ‘Cultural Revolution’ of China’s ex-leader Mao Zedong aimed at eliminating old habits, cultures and ideas. After Chairman Mao’s death in 1976, a new vision of Chinese society emerges, based on economic development to improve poverty and backwardness. China’s policy is formulated on the strategic pursuit of modern science and technology, successful in capitalist countries.

Later, the China leader, Deng Xiaoping, advocates the transformation “from a socialist economy to a socialist market economy” (Coase & Wang, 2013, p. 841), and Chinese toy manufacturers are reassured by Deng’s famous ‘journey to the South’ in 1992 which is the landmark of the China government assertiveness to State-owned enterprises (SOEs) privatization, booming foreign direct investment and accelerating exports (Zheng, Bigsten & Hu, 2009). Then, the tax system is reformed and private entrepreneurship becomes more dominant, both of which attract foreign investment and lead to the reconstruction or privatization of SOEs to the present day (Coase & Wang, 2013; Wang et al., 2009). Dallas (2014) observes that the ‘China open policy’ is biased in favour of foreign investments with privileged “resources, taxes, utilities, lands and profit remittance”. The Chinese government uses a differentiated tax system as a tool to support or discourage industries (Zhang, Huang & Liu, 2012). Taxation as
a means of regulation has a side effect of “production value drop” (Coase, 1960). Toy manufacturers are reluctant to shoulder the cost difference from the reduction of the China export value-added tax (VAT) rebate (FHKI, 2010; Luk, Noori & Leung, 2004; Zhang et al., 2012). Furthermore in 2013, Mainland China added more items upon which to impose VAT, encompassing testing services, consulting, certification, technical and logistics with different tax rates (KPMG, 2013). This logistic VAT, which is supposed to balance a taxation policy gap between foreign and local Chinese logistic companies, eventually evolved into an extra cost to be borne by shippers (Federal Maritime Commission, 2013). Other institutional rules of concern to toy manufacturers include: (a) the tightened factory certification policy which suspended 72 percent of export licences of Guangdong toy companies in 2008; and (b) the new Labour Contract Law which added approximately 30 percent labour cost to toy manufacturers (FHKI, 2010). Under the new Labour Contract Law, employers are more responsible for long-serving (more than 10 years) employees, providing them with indefinite periods of employment (Wang et al., 2009; Xinhuanet, 2008).

The Chinese government has attempted to provide infrastructure for a good business working environment but has not been able to maintain quality levels of electricity supply, telecommunication (including internet), transportation, technical and quality service (Luk, Noori & Leung, 2004; Wang et al., 2011). Specifically, in order to control internet usage ‘non-conflicting to government policy’, the Chinese government chooses political stability rather than free flow of information (Lei, 2011). The government is reluctant to allow the free market to regulate the economy and many controls are exercised (Coase & Wang, 2013). As a result, the search engines of Google, Twitter, Facebook and others are restricted in different areas (Fox, 2010; Lei,
According to a survey undertaken in 2009, internet users in China total 384 million (Lei, 2011). By 2010, China has 420 million internet users and has become the world’s largest internet market, in spite of China’s restrictive policy which is seen as a disappointment to foreign companies and investors (Fox, 2010). The free flow of information is considered important to idea generation and innovation development, but in China information flow is controlled politically (Luk, Noori & Leung, 2004; Yam et al., 2011).

It is understandable that the Chinese government is taking conscious control to avoid a repeat of the Great Leap Famine years 1959-1961 with over 15 million deaths, and to improve economic efficiency, e.g. *Gaige Kaifang* since 1978, that has led China to approximately 20 percent of the world’s population and the second-largest economy (Zhu, 2012). In 2013, China adopts a more balanced policy, mobilized by the Prime Minister Li Keqiang (the ‘Likonomics’), to avoid stimulus and to implement structural reform of the economy (The Economist, 2013). Eichengreen (2013) states that the conscious effort of political policy in China is aiming to stabilize the administrative hierarchy and economy rather than leave regulation to the market.

Although the intervention of some Chinese government policies has an adverse effect on the Toy Industry, some policies favour the industry by promoting social and business exchange. For example, the ‘Closer Economic Partnership Arrangement’ (CEPA) released on 29 June 2003 and the later ‘Individual Visit Scheme’ both promote trade, service and business between Hong Kong and Mainland China (Xinhuanet, 2014a). Hong Kong has benefited from access opportunities into Mainland China for business, information and technology exchange. Compared with Mainland China,
Hong Kong has greater free flow of information and knowledge autonomy to enhance idea exchange, innovation development and technology cultivation (HKTDC, 2008). This comparative Hong Kong autonomy is based on historical and political reasons. It can be traced back to the period in the 1960s and 1970s when Hong Kong was a low-cost and labour-intensive manufacturing centre under British colonial administration.

The Hong Kong government adopted the policy of ‘positive non-intervention’, refraining from subsidizing the manufacturing industry directly but funding industrialization infrastructure development (Yam et al., 2011). When Hong Kong returned to China sovereignty on 1 July 1997, it was expected that Hong Kong would retain a high degree of autonomy under the doctrine of ‘one country, two systems’ that is stipulated in the Sino-British Joint Declaration signed on 19 December 1984, which enables the succession of rules and policies to last for another 50 years without change (Lam, 2000; Xinhuanet, 2014a). Under the legal system of common law, the doctrine of binding precedents from other common law jurisdictions can be used to adjudicate legal cases which stabilize the economy, investor confidence and the business working environment (Xinhuanet, 2014a).

In Mainland China, the law enforcement system is often criticized for officials abusing power (Luk, Noori & Leung, 2004). Insufficient protection and low visibility of law enforcement in Mainland China have affected many Hong Kong toy manufacturers and foreign investors, causing them to keep confidential information relating to R&D and technological advantage in Hong Kong or overseas, rather than in Mainland China (Dallas, 2014; Luk, Noori & Leung, 2004). The operations of toy manufacturers in
Mainland China are restricted to simple projects and basic level designs, making models or prototypes or labour-intensive activities (Luk, Noori & Leung, 2004). To cultivate an environment favouring innovation, the Chinese government has revisited its national innovation plan for the post 1990s, but actual support is minimal (Yam et al., 2011). The institutional and environmental deficiencies in Mainland China have close ties to, and exert a significance influence on, Hong Kong and investors. The deficiencies affect processing trade businesses, comprising 70,000 manufacturing enterprises in the PRD in 2007 and 93 percent of total goods exported from Hong Kong in 2005 (Zhang et al., 2012). Being different from Mainland China, the Basic Law enables Hong Kong to formulate more favourable tax policies for the territory and minimal tax for offshore trade, to enhance Hong Kong as a robust location for trading and coordinating operations (Zhang et al., 2012). The Chinese government supports the Basic Law implementation in Hong Kong as a free port and financial centre with a free flow of capital, independent finances and the Hong Kong government maintaining public order (Xinhuanet, 2014a). Hong Kong’s sound administrative and legal system offers confidence to investors (SCMP, 2013).

In addition to the influence (politically and legally) Mainland China exerts on the Toy Industry, foreign countries also exercise restrictions through formal and informal rules forcing toy companies either to comply or terminate business with those countries (Connelly, Ketchen Jr. & Slater, 2011; Peng & Chen, 2011). The ‘toys recall’ scandal in the U.S.A. in 2007 has aroused worldwide concern of China-made toy safety (FHKI, 2010; HKTDC, 2013; Peng & Chen, 2011), with criticism of some toy makers for profit maximization while neglecting toy safety and quality (Wang et al., 2011). Both China and overseas institutional requirements influence the Hong Kong toy
manufacturers. The monitoring of compliance, relations and corporate governance is more than the buying and selling of goods and services, and costs are involved in coordinating and safeguarding such transactions (Williamson, 2002).

2.6 Economic Dimension

Coase and Wang (2013, p. 843) state that China is a “gigantic economic laboratory”. China’s economic policy has shaped its evolution from a centrally planned economy to a capitalist market economy, impacting production costs, labour costs, currency fluctuations, tax systems and associated coordination costs (Wang et al., 2011; Zhang et al., 2012). From a financial point of view, Dallas (2014) observes there are difficulties in financing firms in Mainland China because the State-run banks prioritize lending to SOEs. Zheng, Bigsten and Hu (2009) state that such SOEs’ preferential treatment reflects economic inefficiency. These SOEs are rigidly structured and not flexible enough to respond to innovation until under constant pressure of competition (Coase & Wang, 2013; Sun et al., 2012).

The lending bias of State-run banks does not favour the majority of small and medium-sized enterprises (SMEs) which have to seek finance elsewhere, for example, in Hong Kong (Mok et al., 2007). Financing resources are important for toy manufacturers’ innovation and ODM development. For Hong Kong manufacturers, banks and financial institutions are generally conservative and perceive innovation as risky. SMEs are reluctant to adopt funding schemes provided by the Hong Kong government (Sun et al., 2012). Although Hong Kong companies are able to fund their Mainland China facilities through the RMB-denominated bonds activity in Hong Kong,
the majority makes use of major banks and financial cooperatives which are few in number (Eichengreen, 2013; Mok et al., 2007). For the Toy Industry, ODM requires additional R&D, foreign expertise, technology, innovation, patents, licences, whether through experts or intermediaries for the technology and knowledge transfer, all of which bear a cost (Yam et al., 2011).

Another China economic policy affecting the manufacturing industry is the RMB internationalization policy attempting to lower cross-border transactions costs and to help the financial market rebalance the Chinese industry economy (Eichengreen, 2013). On 18 June 2014, China Premier Li Keqiang announced further RMB internationalization policy by designating the China Construction Bank’s London Branch (CCB London) to perform RMB clearing in the United Kingdom (Xinhuanet, 2014b). In retrospect, the RMB currency has appreciated over 20 percent against the US Dollar between 2005 and 2012 (Zhang, Huang & Liu, 2012). Between 21 July 2005 and 19 June 2010, the China RMB was pegged to a basket of currencies (representing mainly the US Dollar, Euro, Japanese Yen and South Korean Won) for a more flexible float in the market (Wang & Xie, 2013). Zhang, Huang and Liu (2012) state that China’s economic policy attempts to balance the foreign exchange-rate policy to offset trade and politics (with the criticism of RMB exchange rate manipulation) and to assist industry by easing transaction convenience. However this also increases intervention in the market and discourages free float currency. The RMB appreciation impacts Chinese industries with cost increases, eroding market competitiveness (Zhang, Huang & Liu, 2012).
The Chinese government supports the stability of the Hong Kong financial system and the pegged exchange rate between the Hong Kong Dollar and the U.S. Dollar (Xinhaunet, 2014a). The Chinese government further supports the Hong Kong financial market by the appointment of the People’s Bank of China and the Bank of China (Hong Kong) Limited to perform RMB settlement in Hong Kong to enhance international trade and financial transactions (HKMA, 2007). More than 80 percent of all RMB trades are settled in Hong Kong (Eichengreen, 2013). Following the Chinese government’s granting of RMB bonds and transaction activities in Hong Kong in 2013, some 216 banks joined the RMB clearing system in Hong Kong, totalling RMB 3.84 trillion (82.9 percent of total RMB cross-border settlement in China). Hong Kong RMB deposits and depository receipts have reached RMB 1 trillion, making Hong Kong the world largest offshore RMB trading centre (Xinhaunet, 2014a). The business environment in Hong Kong has been rated by international institutions several times as the world’s most “free” economy, where “people are free to make their own choices. Investors aren’t going to get tied up in red tape and there is a dependable legal system” (SCMP, 2013).

The economic environment of Hong Kong favours foreign investors and business transactions. Hong Kong is the world ninth largest trading economy (Xinhuanet, 2014a). Dallas (2014) presents a study of transactional suppliers’ shipping data from US Customs and finds that most U.S. toy buyers place purchase orders with Hong Kong companies even though most of the production is in Mainland China (see Figure 2-3 for the U.S. customs record of production and contracting in toys). For example, toy company Mattel contracts 72 percent of purchase orders with Hong Kong companies and only 16 percent directly with Mainland China firms. Hong Kong toy
firms continue to perform as gatekeepers, being the contractors between US buyers and production factories in Mainland China (Dallas, 2014).

Figure 2-3 U.S. Customs Data about Production and Contracting in Toys.

![Figure 2-3 U.S. Customs Data about Production and Contracting in Toys.](image)

Production and contracting in toys. Source: U.S. Customs Bureau Waterborne Shipping Manifest Import Data. Data include transactions from July 2007 to July 2012.


The relocation of manufacturing from Hong Kong to Mainland China enables the Hong Kong Toy Industry to remain competitive through lower labour costs and production capacity advantages in China at a time when the Hong Kong economy is experiencing rising land and labour costs (Zhang, Huang & Liu, 2012). However, the lower cost advantage in China has since revealed hidden costs to the Hong Kong toy manufacturers (HKTDC, 2009). These hidden costs include: (a) laboratory testing and factory audit costs (constituting at least 1.5 percent of annual production costs); (b) increasing labour cost due to China Labour Contract Law (which add 23.5 percent
and 34.1 percent to Shenzhen and Dongguan manufacturers respectively; (c) social security systems (pension, medical service, industrial injury, unemployment, birth planning scheme) added 11.2 percent and 9.55 percent to Shenzhen and Dongguan manufacturers respectively; and (d) China corporate finance income tax on foreign invested enterprises increased from 15 percent to 25 percent. In addition to the RMB currency appreciation, China’s VAT rebate reduction has increased the cost burden on the Hong Kong Toy Industry.

For the ‘hidden costs’ that HKTDC (2009) mentions, Wang et al. (2011) use transaction costs to explain that the ‘hidden costs’ may outweigh the expected savings from relocating toys manufacturing to Mainland China. These transaction costs include the effort required in contracting toy manufacturing, protecting intellectual property, and coping with fluctuating economic factors of currency, taxation, labour and relational affairs. These ex-post governance transaction costs, in some circumstances, have to include working with government agencies to complete certain deals. Wang et al. (2011) believe these transaction costs cause contracting difficulties. Williamson (2002) states that human opportunism makes contracts difficult to be self-enforcing, leading to ‘incomplete contracts’. Furthermore, Coase (1960, p. 43) believes that economists should expand their scope to “compare the total product yielded by alternative social arrangements” instead of comparing receipts from different areas of production.

Some investment and production yields may generate other outcomes that are harmful and incur social costs (Coase, 1960). One example is the pollution problem as a result of industrialization resulting in the Chinese government’s stringent environmental
control policy for Southern China manufacturers (Sharif & Huang, 2012). Seventy percent of rivers and lakes in Southern China are seriously polluted and two-thirds of China’s cities have poor air quality with high carbon monoxide, which is related to approximately 400,000 deaths each year (Zheng, Bigsten & Hu, 2009). Efficient China productivity leading to high GDP growth annually raises the concerns of inflation and real personal income impacting upon the economy (Chen, Wu & Wen, 2013). The remarkable industrial growth rate of Mainland China’s private sector outperformed the State sector by 23.95 percent per annum between 1978 and 2010, even though the private sector has difficulty in gaining support and finance due to the monopoly power of State-run banks favouring SOEs (Chen, Wu & Wen, 2013). China has statutory requirements for ethical manufacturing practices, safe working environments and employee welfare benefits. Manufacturers are required to spend time and effort (with associated costs) to comply with rules and maintain: (a) safe working conditions; (b) acceptable working hours; (c) minimum wages and compensation; (d) no child labour; (e) no forced labour; (f) hearing of labour complaints; (g) no harassment; and (h) no discrimination of human rights (Kruegar, 2008).

This ethical manufacturing compliance is regarded as the ‘entry requirement’ for doing business with major toy companies and retailers, and is outlined in manufacturing codes of conduct, for example the ICTI CARE process (ICTI, 2014a, 2014b; Kruegar, 2008; Meehan, Meehan & Richards, 2006). Wang et al. (2011) believe that the economic motive for production relocation should compare the economic benefit to China and other regions with the transaction costs before deciding whether or not to continue in-house production. OEM and ODM have different investments and specific requirements. Shou et al. (2013) think the specific assets invested by a firm determine:
(a) the firm’s perceived risk in a relationship with another firm or partner; (b) the propensity to safeguard and to take better control of autonomous and operational independence; and (c) the ability of the firm to take full ownership and full control of an operation (Dallas, 2014). Alternatively, toy firms may choose to outsource all or part of their operations, goods or services to a market that has lower transaction costs (Qu & Brocklehurst, 2003; Zhao et al., 2008). This view can be applied to the decision of the toy companies to engage: (a) OEM; (b) ODM; or (c) both in parallel in the same operation.

Another economic influence is the taxes that affect toy manufacturers, e.g. the China VAT or overseas import tariffs. There are arguments about the method of tax implementation. Samuelson (1986) states that the lump-sum tax approach is optimal and, although one's income is reduced, the retained economic efficiency means there is no further loss. The most important aspect is the taxing mechanism, as the tax payer can earn "enough lump-sum income to keep him on the same level of satisfaction would then result in an equal percentage change in all goods and services" (Samuelson, 1986, p. 139). Atkinson and Stiglitz (1972) argue the dilemma of a uniform tax enabling economic efficiency versus ‘different commodity different tax’. They suggest that a good tax structure should consider efficiency, equity, administrative simplicity and flexibility. Coase (1960) states that using taxes as a means of economy regulation may inflict harm and reduce efficiency because of the uncertain social cost. In any event, a physical tax burden exists for all. When there is tax levied on top of a product’s price, it adds to and shifts the supply curve upward. The tax burden is directed towards the supplier or buyer depending on the elasticity of demand (Atkinson & Stiglitz, 1972; Edgeworth, 1897; Lipsey & Courvant, 1996). See figure
2-4 for an illustration of the shifting tax burden.

Figure 2-4  Tax as Cost Increase Burden to Customer or Buyer Depending on Price Elasticity of Demand

1) Sales tax is a bigger burden to supplier than customer when demand is elastic.

Supply curve shifts from S to S' due to extra cost X with an "Elastic" Demand curve.

2) Sales Tax is a bigger burden to customer than supplier when demand is inelastic.

Supply curve shifts from S to S' due to extra cost X with an "Inelastic" Demand curve.

For simplicity, it is assumed in a competitive market that a very small monopoly power can mark-up competitive prices in industry (Parry, 1995). The price elasticity of demand is the response to the change in the quantity demanded over a change in price (Lipsey & Courant, 1996). When there is a price increase of X (e.g. due to tax) shifting the supply curve from S to S’, the equilibrium price P1 and quantity Q1 shift to P2 and Q2 respectively according to the elastic or inelastic demand curve. The range of the price difference between P2 and P1 illustrates the cost burden borne by the customer (area A), while P1 and P3 illustrates the burden to the supplier (area B). The areas A and B are the tax revenue, and the areas C and D denote the excess loss of consumer surplus and producer surplus respectively. These excess losses of producer and consumer surplus are inefficiencies or deadweight losses (Atkinson & Stiglitz, 1972). As in case (1) of the elastic demand, the consumer shares a smaller tax burden than the producer (area A is smaller than area B) while in case (2) of the inelastic demand, the consumer shares a larger tax burden than the producer (area A is larger than area B).

Government policy and economic interactions are closely tied together, and their involvement in Eastern Europe and China demonstrates their influence (Coase, 1992, 2012). There are arguments on the validity and contribution of government involvement to economic efficiency. Mainstream economics, tracing back to Adam Smith’s influential ‘invisible hand’ market coordination, have deeply affected the economic system (Coase, 1998). Price theorists state that economic inefficiency is not necessarily due to government policy, and James Buchanan, who is an anti-interventionist economist, thinks government intervention in resource allocation should be avoided (Marciano, 2013). James Buchanan thinks externalities, which are external effects existing because of the interdependency between individuals, are
subject to whether individuals are perceived as problematic or not (Marciano, 2013). There is no direct link between externalities and government intervention, as individuals will cooperate voluntarily and sources of market inefficiency will eventually be removed (Marciano, 2013). Friedman (1970) embraces self-regulating of the market, and warns that free market self-regulating systems will be destroyed if there is government intervention. Friedman (2006) criticizes Donald Tsang, the Chief Executive of Hong Kong, for overturning the government’s positive non-intervention policy, as a free economy is the major reason for encouraging private enterprise and business investment in Hong Kong.

Between the 1920s and 1960s, the Price Theory, which explains how price, supply and demand coordinate market-level activities, received support from economists including Frank Knights, Henry Simons, Milton Friedman (Medema, 2010). In the 1960s, the study direction changed from the ‘market’ to ‘individuals’, led by George Stigler and Gary Becker, then was followed by institutional analysis at the ‘firm-level’ advocated by Aaron Director and Ronald Coase studying government involvement in the market (Medema, 2010). Coase agrees with Buchanan’s view that regulating resource allocation by the market is better than government intervention in some circumstances (Marciano, 2013). In China, banking system inefficiency due to government ownership and control of banks and prioritizing loans to less productive SOEs instead of private enterprise, causes SMEs difficulty in obtaining finance (Chen, Wu & Wen, 2013). However, Coase (1960) states that government can be a ‘super firm’ to handle matters efficiently. Coase’s view on government intervention is more strategic and situational, which is different from Buchanan and other Price theorists. Furthermore, Coase (1998) assertively states that the mainstream economic belief of
determining price by the supply and demand as not sufficiently related to the real world.

The traditional supply and demand interaction in terms of price and resource allocation in the market, as explained by Alfred Marshall, is still affecting today’s neoclassical price theory paradigm, but it does not relate to what is happening in the real world (Coase, 1998; Nelson, 2013). Nelson (2013) argues that the equilibrium point in supply and demand curves, and the shift of these curves, indicate that something has happened but not ‘how’ or ‘why’ it has happened, for these are often affected by negotiation and bargaining. Coase (1981) challenges the theoretical study of neglected real world transaction costs. The bounded rationality and interactions of individuals are often neglected, and the too-theoretical downward sloping demand curve (see Figure 2-4) for optimal consumer choice in purchase decisions can be changed by the individual’s adaptive response to the environment (Nelson, 2013). Yet innovation can change routines, and new technology or new usage can differentiate products and vary prices (Nelson, 2013). Price increases (e.g. government VAT, overseas import tariffs) shift the supply curve upward (see Figure 2-4). Thus a product with stronger demand from the market (more price inelastic demand) enables the supplier to shoulder a lower cost burden than one with weaker demand (more price elastic demand).

Another economic impact upon Hong Kong toy companies is the difficulty in deploying equal amounts of efforts and resources to individual areas of their operations because of limited human and monetary resources (Chan & Chin, 2007). This ‘resource’ scarcity compels the toy companies to make choices of priority. Williamson (2002, p. 174) declines the use of choice in decision making, electing to
examine using the science of contracts in which “all complex contracts are unavoidably incomplete”, substantiating the transaction costs analysis. Coase (1937) states that contracting exists when people are paid to perform certain jobs. Firms can be regarded as performing various contracting activities in an economic exchange (Williamson, 1981, 2002, 2010). All firms exist by way of their structures and their inner workings (Williamson, 2002). TCE encompasses the study of organizational transactions and their boundary, internally within an organization or externally interfacing with the market (Williamson 1981). OEM or ODM have different contracting arrangements, either internally within a firm’s hierarchy (in-house governance between Hong Kong and Mainland China) or externally with outsourced Mainland China factories. TCE has its contribution in corporate governance. Williamson (2002) uses a Simple Contracting Schema model (see Figure 2-5) to describe the different governance decisions in respect of the different conditions of contracting and asset specificity.

Figure 2-5  Simple Contracting Schema

**Simple Contracting Schema**
Asset specificity ‘k’ (k >0 or k = 0) determines the incentive to safeguard a specific investment when the contracting parties are in a bilateral dependent relationship, or to obtain information from the market when the investment is non-specific (see governance structure A). When parties are engaged with asset specificity, the existence of protection or safeguards (in the form of penalties, verification procedures, switching costs) progresses one to the next contracting status (safeguard ‘s’ >0). Otherwise, the absence of protection can lead to an unstable dependence relationship (s=0) (see governance structure B). Whenever effort is spent to enforce bilateral contracting (governance structure C) or to progress to hierarchy (unified ownership, vertical integration) due to a possible dispute or broken relationship (governance structure D), this model provides a logical decision flow helping toy manufacturers to evaluate contracting from the market in the first instance to a hybrid contracting relationship or eventually to a hierarchy mode (Williamson, 2002).

As ODM has asset specificity and a different governance structure from OEM, when applying the model, effort is required to safeguard the ODM proprietary design, knowledge, technology and skills by contractual means. The extent of asset specificity and safeguarding determines the governance structure and boundary of a toy firm. Williamson (2002) points out when specificity increases to the extent of more adverse conditions (lower safeguard), a firm may have to decide to give up some specialized investment for a more re-deployable solution of market contracting, or to embed the specific investment in the governance structure to include additional cost considerations. Based on the Simple Contracting Schema, when the investment is able to be re-deployed and of a generic (non-specific) type, market governance is preferred.
Shou et al. (2013) observe that, under a bilateral relationship, specific asset deployment creates a mutual lock-in relationship and reduces opportunities for both parties. Wang et al. (2011) are of the opinion that the option of contracting to the market or not is based on consideration of the economic motives of cost and capital investment, and the transaction cost factors of coordination and monitoring. Overall, economizing the transaction cost is the focus of studying organizational governance (Williamson 1981).

2.7 Socio-cultural Dimension

Coase (2012, p. 2) cautions that studying economics is suicidal if “ignoring the influences of society, history, culture and politics on the working of the economy”, and, in view of market economies booming in China, there are “social institutions to coordinate the working of markets and firms across various boundaries”.

Behind the booming economic growth, China is experiencing deep social turmoil and tensions because of the widened gap between inequality and development (Coase & Wang, 2013). Social interaction should be considered in addition to economic factors because a relationship is based on loyalty which incurs a propensity to transact (Zhao et al., 2008). The Chinese culture features relations, ‘guanxi’, personal trust and face, and differs from the Western culture which is based on trust, equity and responsibility (Wang et al., 2011). China’s national culture is characterized by strength, power, distance and collectivism (Zhao et al., 2008) and is affected significantly by Confucianism which embraces respect, philanthropy, collaboration and cooperation, happiness through relationships and a balanced society enhancing prosperity (Gao,
Confucianism regards family as a unit of moral dimension and its influence extends to all organizations, society and political parties (Chen & Miller, 2010; Coase & Wang, 2013). Coase and Wang (2013) state that the social reforms advocated by China ex-leader Deng Xiaoping restore Chinese relations from Confucianism. This Chinese culture influences people to see things from a long-term point of view, which builds on past legacies to enhance current conditions for a better vision of the future (Chen & Miller, 2010). Coase and Wang (2013, p. 839) describe such behaviour as affecting the Chinese government’s reactive manner of “try something new and wait and see what happens”. In a customer-supplier relationship, this ‘guanxi’ relational culture defines the reciprocal expectation influencing the transacting parties to perceiving rewards, sharing information with each other, granting access to limited resources and setting contracting terms, pricing and credit (Zhao et al., 2008). Reputation is an important asset and is also a resource whose relational association affects the propensity of firms to associate together with different levels of participation in customer NPD, production planning and shipping schedules (Chan & Chin, 2007; Chan & Miller, 2010). However, Luk, Noori and Leung (2004) think the relational cost in Mainland China is a headache concerning toy companies. Improvement in relationship commitment reduces transaction costs and opportunistic behaviour (Zhao et al., 2008).

On the other hand, a culture of top-down absolute power of the hierarchy or organization is observed (Wang et al., 2009). Such leaders may interpret corporate policies and goals in favour of their interests and most subordinates (workers in a factory) know little of such rules. They listen with respect and adopt what the leaders tell them. Workers become passive and powerless, especially in the massive female
factory workforce in the Chinese manufacturing industry. Medema (2010) and Posner (2010) raise the problem of executives’ excessive pay packages which trigger opportunistic goals deviating from corporate direction and stakeholders’ long-term interests, emphasising short-term profit (Chen & Miller, 2010; Medema, 2010; Posner, 2010). The Upper Echelons Theory informs leaders of organizations, whose background and experience are affected by bounded rationality, environmental factors and social factors, to dictate the organization’s decisions and outcomes (Connelly, Ketchen Jr. & Slater, 2011). But this ‘top-down’ culture has softened recently due to Mainland Chinese workers gradually earning bargaining powers due to labour shortages and low birth rates (Wang et al., 2009). The former Chinese President, Hu Jintao, added ‘harmonious society along with scientific development’ to the new Party Charter in 2007 to emphasize social stability, re-centralize government power, combat nation-wide corruption and resolve social conflicts, through a Keynesian pathway to improve living standards, upscale technology production, and protect workers’ rights.

In the first quarter of 2008, the introduction of China’s new Labour Contract Law caused an increase in the number of labour dispute cases (over 10,000 cases) handled in the labour courts of Guangzhou, Dongguan and Shenzhen (Wang et al., 2009).

Hong Kong people have a generally higher ethical standard in law compliance than those in Mainland China. Lam and Shi (2008) attribute this phenomenon to the Mainland Chinese working under the influence of State-owned organizations’ collective socialist culture, while those in Hong Kong work under a capitalist market economy featuring self-interest and individualism. Chen and Miller (2010) argue the Chinese Confucian culture emphasizes respect to leaders and, when leaders are regarded as part of the hierarchy, there is a risk of hindering independent thought and
resistance to change when a “leader” culture is over-emphasized in relational groups. In some cases, although employees are generally very respectful to managers and follow their instruction, managers may not trust employees (Sun et al., 2012).

The Chinese Toy Industry includes some foreign investors; but private Chinese family-owned firms are the majority (Peng & Chen, 2011). The industries are mostly SMEs manufacturing on a contracting basis (Lau, Yam & Tang, 2010). Important decision making is often subject to individuals’ relationship with the owners (Peng & Chen, 2011). Although Hong Kong inherited Chinese Confucianism, its culture is slightly different from Mainland China as it is also affected by the Western culture based on British colonial rule for more than 150 years (Xinhuanet, 2014a). Chen and Miller (2010) think the contradiction between Chinese and Western cultures reflects different ideas and ways of doing things in Hong Kong and Mainland China. Western culture is explained as ‘either you are with us or against us’. However, the Chinese believe they can be separable and interdependent at the same time. Opposites create a new possibility. Chinese traditional and cultural mentality is a factor of reacting slowly to compliance, unlike the West which is very precise ‘yes or no, pass or fail’ (Chen & Miller, 2010). Qin (2008) states that Chinese Confucianism emphasizes restraining oneself for overall harmony and has resulted in the Chinese adopting a weaker sense of rule-obedience and resolving conflicts by relational means. Traditional Chinese Confucian culture emphasizes conflict settlement, or getting things done through relational means, and is embedded deeply in the Chinese mind, unlike the Western approach which is based on objective technical assessment (Chen & Miller, 2010; Qin, 2008).
Innovation and technology development requires engineers and designers. However, this skilled workforce is lacking in Southern China, resulting in rising wages and production costs (Mok et al., 2007). With regard to experienced technical people, Hong Kong toy manufacturers find it difficult to employ competent engineers in PRD and are required to source fresh graduates from Chinese universities and train them in-house (Luk, Noori & Leung, 2004). This issue also relates to the restrained growth of the workforce because of China’s one-child policy and the rising aged population. China is obliged to allocate more resources to: (a) social affairs (health care and pension); (b) cultivating innovation development in tertiary education; and (c) business areas (Eichengreen, 2013). Coase (2013) indicates that the one-child policy will have a damaging effect on China in the long term because of the lack of people to grow the economy. Young Chinese have growing opportunities in the service industry (white-collar) and there are fewer participants entering the manufacturing industry (blue-collar), greatly affecting the workforce supply (The New York Times, 2013). However, as a marketing and innovation strategy, the demographic factor can be a promising opportunity (Drucker, 2002).

2.8 Technological Dimension

China’s technology development is very different from the West which is built upon a technical based process evolved during the Industrial Revolution which occurred in England in the eighteenth century (Zhu, 2012). China possessed the world most advanced technology during the Song Dynasty (around 1200 A.D.), but China’s political system became centralized and inward-looking between the Ming and Qing Dynasties (years 1368 to 1911), causing China’s technology to fall behind that of the
Western technology and industrialization growth accelerated during this period and China’s pursuit of technology became slower than the West.

Technology is an important source of innovation development. The ability of a firm to make use of technology and knowledge is critical to the firm’s NPD (Yam et al., 2011). The importance of innovation to the Toy Industry can be described as “firms survive or die because of innovation” (Lau, Tang & Yam, 2010, p. 765). China has strategically opened itself to the world primarily in the areas of science and technology from capitalist countries, and many China SOEs are employing foreign experts (Coase & Wang, 2013). Most of China’s innovation policies and funding benefit SOEs and large companies operating in the high-technology sector, and there is very limited support to SMEs (Sharif & Huang, 2012). Simply pouring resources into universities and research institutions is not enough as they need to maintain links with each other instead of conducting research in isolation.

Government resources should extend beyond the high-tech sectors of R&D to broader programmes including innovation training and acquiring licences or patents (knowledge-based resources) particularly in the low and medium sectors. Innovation requires the availability of new information, ideas, knowledge exchange and communication support (Dahlander & Gann, 2010; Yam et al., 2011). The freedom of information inflow and outflow directly affects a firm’s innovation capability (Chung, Yam & Chan, 2004). Technology, e.g. smart phones and social media communications, has changed the way people live and conduct business by linking people together and sharing information (Wang et al., 2009). Teece (2010) states that Apple’s innovative technology has elevated telecommunication to new heights, transforming its mobile
phone products (iPhones and iPads) to contain games functions. This breakthrough idea has attracted many market followers into the toy market affecting the sales of traditional toys (HKTDC, 2014). The internet is an important information platform for the mobilization of technological development and is currently monitored and restricted in Mainland China (Lei, 2011). The internet is a powerful medium: (a) to mobilize innovation and technological development; (b) to improve the cost of communications; and (c) for coordination and participation (Lei, 2011). Coase and Wang (2013) state that innovation is the decisive battlefield where China must sustain its long term economic position on the world stage. China’s leaders do not want innovation to stagnate in low-tech export manufacturing, and instruct SOEs to develop more high-end and high-tech products, as stated in China’s ex-Premier Zhu Rongji’s message during the International Trade Fair in 1999 (Wang et al., 2009).

In China, authorities have been established to be responsible for the development and administration of technology and intellectual property in China. The State Ministry of Science and Technology was established to: (a) draft related laws and policies; (b) liaise with other organizations; (c) implement plans; (d) formulate budgets; and (e) issue assessments and statistics (MOST, 2014). The State Intellectual Property Office (SIPO) enforces intellectual property protection governance in China, including drafting patent working plans, patent and intellectual property law enforcement and coordination with foreign-related intellectual property works (SIPO, 2014). To interact with foreign environments, the Chinese government has proposed that Hong Kong be a bridge to implement China’s ‘go-global’ strategy, by adopting international technologies and managerial expertise together with external investment and talent (Xinhuanet, 2014a). Hong Kong has similar institutions and plans (ITC, ITF, HKSTP,
ASTRI and HKPC) to support innovation and technology development as discussed previously in Section 2.2.

Yam et al. (2011) argue that the innovation system is immature in both Mainland China and Hong Kong, and most Hong Kong manufacturers utilize their own innovation systems in Hong Kong rather than Mainland China. Hong Kong firms refrain from collaboration in R&D and innovation projects with Mainland Chinese universities or research institutions, and do not regard them as reliable sources of knowledge (Sharif & Huang, 2012). Although SOEs have strong resources in engineering and technology, Hong Kong firms find they are not flexible to work with and it is difficult to reduce the affiliated transaction costs (Wang et al., 2011). In Hong Kong, according to the study of the regional innovative system (RIS) which accumulates data relating the diffusion of knowledge, basic industrial research is inadequate due to: (a) the barriers to acquiring tacit new knowledge from individuals capable of transforming innovative ideas into products; and (b) toy manufacturers normally developing innovative products by modifying existing products (Yam et al., 2011). Manufacturers are reliant on customer’s help in R&D (OEM) and focus on lowering production costs. Product innovation is often restricted to modifying and repackaging, lacking serious breakthrough innovation (Lau, Tang & Yam, 2010). Many SMEs obtain new ideas from their senior management who attend trade fairs. SMEs frequently lack technology resources and are not eager to acquire new technology because of frequent changes in toy types and variety (Luk, Noori & Leung, 2004).
Toys have a short product life cycle with an increasing demand for compliance in contrast to the economic pursuit of specialization and economies of scale in production, which disturbs toy vendors (HKTDC, 2014; Zhang, 2011). The growing market trend in toys is towards more technological development and hi-tech features (Wang et al., 2011). Hi-tech electronic toy competition is fierce, and toy sales are challenged by smart phones and tablets (HKTDC, 2014). Internet technology popularizes the E-commerce business model that has shifted power leverage between suppliers and buyers (business-to-business ‘B2B’) to a more direct consumer interface (business-to-consumer ‘B2C’), enhancing the demand for better quality products (Lai, Ulhas & Lin, 2014), and driving both retailers and manufacturers to be more compatible with the expectations of consumers.

Investments in R&D and innovation are considered risky to many investors because their costs are high and they require a firm’s sound financial ability to acquire laboratory equipment, hi-tech instruments and qualified people (Sharif & Huang, 2012). An open system reduces the uncertainty of innovation. Dahlander and Gann (2010) state that transaction costs (for coordinating, maintaining relationships, competing and tackling external organizations’ opportunistic behaviour) decide how open or closed is a system of innovation. Chung, Yam and Chan (2004) are of the opinion that operational efficiency determines whether a firm obtains innovation activities or components from the market, or performs the activities in-house. A short product life cycle, growing specificity of a product, customer specifications, product safety and technological requirements are factors pushing toy manufacturers to shorten product development lead times. Additionally, Chung, Yam and Chan (2004) stress the incorporation of brand equity, relationship networks and operational efficiency to
sustain a competitive advantage in the industry. Information flows from designers to contracted manufacturers, where “manufacturing is an infrastructure business and design is an innovation business” (Chung, Yam & Chan, 2004, p. 268). A synergy of Hong Kong innovation systems with PRD manufacturing efficiency benefits each party. Such a bilateral dependency relationship facilitates intellectual and proprietary asset development that is difficult to imitate (Sharif & Huang, 2012).

2.9 Strategic Dimension

Both the strategic dimension and corporate strategy are important in the Toy Industry. The relocation of toy manufacturing to Mainland China for lower cost advantages has become a corporate strategy to sustain a competitive advantage (Chan & Chin, 2007; Wang et al., 2011; Zhang, 2011). Zhu (2012) finds there is potential for China’s productivity growth to continue with Total Factor Productivity (TFP). TFP is defined as “the portion of output not explained by the amount of input used in production … is determined by how efficiently and intensely the inputs are utilized in production” (Comin, 2006, p. 1) and is effectively an indicator of a country’s productivity growth. Quoting Japan as an example, its TFP was 56 percent of the U.S. in 1950, 83 percent in 1975 and then fell back. Taiwan’s TFP was 50 percent of the U.S. in 1965, and 80 percent in 1990 and then slowed down. China’s TFP was 13 percent of the U.S. in 2007 and 20 percent in 2012 (Zhu, 2012). Zhu (2012) cautions the inefficiencies that China needs to improve, for example: (a) the China banking system, dominated by State-controlled banks favouring borrowing by SOEs rather than by toy manufacturers; (b) high GDP growth triggering inflation; (c) general price and manufacturing cost increases; (d) relational settlement culture; and (e) deviations from legal and
institutional requirements. These phenomena and misalignments give rise to social problems and affect toy manufacturers’ survival and overall Toy Industry prospects.

A short product life cycle for toys, usually less than one year, demands that toy manufacturers develop product strategies to shorten lead time (Chan & Chin, 2007; Chung, Yam & Chan, 2004). If a toy takes 60 weeks (as stated in Chung, Yam & Chan, 2004) from concept to retail, then adding a one year product life cycle (Chan & Chin, 2007) gives rise to the question of whether the innovative idea can last such a long period. The difficulty of product development speed (from idea to selling) versus product quality (performance after serious research and consideration of customer needs) is further intensified by technological and market uncertainty, causing firms to spend greater effort in R&D (Rodriguez-Pinto, Carbonell & Rodriguez-Escudero, 2011). This ‘effort’ relates to a corporate governance structure which is dependent upon the asset specificity and monitoring associated with the type of external or internal contracting (Williamson, 2002). If the required investment in ex-post governance does not attain the desired return on investment (ROI), and the same consideration also affects the ex-ante investment due to the transaction cost outweighing it, investors will not make such an investment (Hart & Moore, 2007).

Sun et al. (2012, p. 547) state that “innovation will not happen by chance” and an innovation strategy should consist of corporate innovation orientation and supportive management. In product design, it is important that a consumer perceives a product to be visually new, as it affects the consumer’s emotional and symbolic association as a first reaction (Radford & Bloch, 2011). A brand has a personality associated with loyalty (Lin, 2010), and this is a powerful competitive strategy because a reputable
brand reduces a shopper’s uncertainty and the transaction costs of searching and verifying product quality (Chen, 2010). A brand has its specificity (Williamson, 1981), and it affects retailers’ marketing strategies of either a private brand (OEM or ODM) or a manufacturer’s brand (OBM), evaluating who and which strategy will receive a greater advantage (Chen, 2010). The scope of branding strategy covers B2B and B2C transactions. When the B2C sale of a manufacturer’s brand product is more successful than a retailer’s private brand (demand for a manufacturer’s brand is more inelastic than a retailer’s private brand) this is likely to trigger a manufacturer’s opportunistic behaviour to increase the selling price to retailers (B2B) for profit maximization (Qu & Brocklehurst, 2003). A retailer’s private brand strategy (OEM and ODM) may be challenged by a manufacturer’s brand specificity (OBM) that is already rooted in the consumer’s mind with loyalty associated with self-identification and social recognition, and affecting the consumer’s propensity to purchase the product, even at a higher price (Chen, 2010). OBM, if successful in acquiring consumer loyalty, can alleviate pressure from private brand competition (Manzur, Olavarrieta, Hidalgo, Farias & Uribe, 2011).

It is difficult to predict market demand even when buyers and sellers share information closely (Shou et al., 2013). Retailers adopt a private label strategy, with their own marketing, advertising and store promotions, to compete with a manufacturer’s brand, shifting the brand advantage from the manufacturer to themselves to leverage better bargaining power and profit (Chen, 2010). However, retailers must add governing costs to balance the manufacturer’s brand opportunistic behaviour to safeguard the quality of private brand products (OEM and ODM) against possible inferior production and quality (Chen, 2010; Qu & Brocklehurst, 2003). This governing cost in monitoring product quality and the manufacturing operation may be substantial,
exceeding the savings from adopting a private brand (Chen, 2010). There are transaction costs in these various interfaces. The option for retailers to adopt different branding and marketing strategies depends on which option has better transaction cost economization (Williamson, 1981, 2002, 2010). Manufacturers are also faced with transaction cost economization decisions to monitor governance in the ex-ante stage (before mutual R&D investment) and the ex-post stage (after contract) (Williamson, 1985) that encourage or discourage the contractual production with B2B buyers because of the perceived ROI (Hart & Moore, 2007).

ODM, innovation and R&D development require financing, time, physical and manpower resources (Sun et al., 2012). Sun et al. (2012) stress the importance of leadership and capable employees to implement innovation strategy and leadership. Employees must be creative and visionary. Recruiting competent personnel in Southern China is challenging and needs to be undertaken cautiously because of the need to safeguard R&D confidentiality (Luk, Noori & Leung, 2004). Human asset specificity is a key dimension in governance structure because of the people involved (with bounded rationality and opportunistic behaviour) in a bilateral dependent relationship that is: (a) specialized in a certain area; (b) firm-specific; (c) bilaterally employed within a firm’s hierarchy; or (d) external contracting (Williamson, 1981, 2010). The leadership of Chinese manufacturers is too focused on the economic pursuit of lower cost and immediate profit maximization (Yam et al., 2011). This is similar to the agency problem and deviation from corporate goals, as stated by Posner (2010). Hong Kong companies are generally too busy and too focused on immediate daily problems, neglecting the importance of long-term innovation benefits (Sun et al., 2012).
Manufacturers also have short-term mindsets utilizing knowledge to fix problems rather than enhancing the ‘capability’ of innovative and problem-solving skills, deterring technology and innovation development of the Hong Kong manufacturing industry (Yam et al., 2011). This ‘capability’ is important and, if it is neglected, China and Hong Kong manufacturing industry competitiveness will be vulnerable to external challenge (e.g. oil price fluctuations) to affiliated transportation, material and manufacturing costs (Zhang et al., 2012). Mok et al. (2007) state that China is risking her long term competitiveness in the manufacturing industry that solely relies on cheap labour costs but neglects technological development (low technical efficiency of 54 percent for China, which is on a par with Bangladesh but lower than Vietnam with 79 percent). The drop in China’s manufacturing comparative advantage leads to more manufacturing relocation to lower cost regions outside the PRD, or to other Asian countries, consequently affecting overseas buyers to bypass Hong Kong as an intermediary (Zhang et al., 2012). Manufacturing relocation not only shifts production but also shifts existing buyer-supplier relationships to the new manufacturing region (Dallas, 2014). Even if Hong Kong can still perform as the Toy Industry’s coordinating centre with production in Mainland China, Vietnam, Bangladesh or other lower production cost countries (Chan, Chin & Lam, 2007; HKTDC 2013; Luk, Noori & Leung, 2004; Sun & Wing, 2005), the intermediary role of the Hong Kong Toy Industry will become less important when buyers are under pressure to economize on costs even further (Zhang et al., 2012).

The manufacturers’ short-term mind-set and pursuit of lower costs (cost control) pose a weakness in the innovation development of the Hong Kong Toy Industry (Lau, Tang
& Yam, 2010). OEM-focused manufacturers compete on cost and relationship with customers while ODM-focused manufacturers emphasize proprietary design and innovation (HKTDC, 2008; Sun et al., 2012). ODM is more promising than OEM in the long term (Sun & Wing, 2005; HKTDC, 2008). A firm’s resources of technology and innovation, which relate to its capability to acquire and transform an innovative idea or knowledge into a product, affect product performance directly (Yam et al., 2011). Rodriguez-Pinto, Carbonell & Rodriguez-Escudero (2011, p. 145) state that “Successful new product development (NPD) is widely recognized as a critical determinant of firm performance and competitive advantage … a firm’s ability to develop new products successfully has become more important than ever”. Sun and Wing (2005) recommend that Hong Kong toy companies enhancing R&D capability should undertake projects not easily substitutable by competitors so as to sustain performance. Lau, Tang and Yam (2010) assert firms with higher innovation ability perform better than those with lower innovation ability. To mobilize R&D and innovation, leadership, clear goals and vision, and communication within the project team is a major requirement (Sun & Wing, 2005). The ability of toy manufacturers to develop ODM themselves (own innovation ability) and not products co-developed with customers, is important to sustain the Toy Industry (Lau, Tang & Yam, 2010). Involvement that is too high in customer-related product development limits product development choices for manufacturers.

OEM manufacturers follow customers’ directions, weakening manufacturers’ capability and quality for creativity, innovation and R&D, affecting the Hong Kong Toy Industry’s competitiveness in the long term (Lau, Tang & Yam, 2010; Sun & Wing, 2005). There is hesitation by toy manufacturers to develop OBM unilaterally (OBM as
a further extension of ODM, but in the manufacturer’s brand) because buyers (traders or retailers) know the regional market and customers better than the manufacturers. This brings risk and uncertainty of acceptance to manufacturers (HKTDC, 2008), and questions whether manufacturers’ ROI is warranted (Hart & Moore, 2007). Specific asset deployment unilaterally or bilaterally in a buyer-seller relationship often arises switching cost problems and opportunistic behaviour because the condition of resource scarcity decides the dependence level between firms and their cooperative activities (Shou et al., 2013). Uncertainty brings maladaptation which incurs transaction costs (Williamson, 1981).

From the perspectives of competitive and power leverage, Hong Kong has been long-ranked among the most competitive economies in the World Competitiveness Yearbook (Xinhuanet, 2014a). In terms of survival and improved profitability, Chan, Chin and Lam (2007) recommend that Hong Kong toy companies enhance their sourcing performance in a cost-effective manner, for instance, by evaluating their own product development or contracting external suppliers. Hong Kong is part of the GPRD where there are nearby industrial group clusters (Zhang et al., 2012). For such a sourcing strategy, Hong Kong toy companies can access these industrial group clusters which provide support, and also competition, and competition is not restricted to the PRD, but also Shanghai and other Asian countries (Chan & Chin, 2007; Chan, et al., 2007; Sun & Wing, 2005). Although keen competition exists, Dallas (2014) finds that U.S. toy buyers (the biggest toy market) place more purchase contracts with Hong Kong suppliers than Mainland Chinese suppliers. According to Dallas (2014), a prosperous Chinese export business is built on a contracting weakness in which Chinese manufacturers take a passive role.
As reported in ICTI (2012), buyers’ aggressive price demands and changing shipping dates cause difficulties for toy manufacturers, with extra costs and insufficient lead times for products launched into the market. When unexpected costs are incurred, e.g. the U.S. West Coast port congestion causing extra cost to the shipper (American Journal of Transportation, 2014), whether paid by buyers or manufacturers, the consequence of goods arriving late or missing a major selling season has a greater effect on buyers who either postpone the original buying plan or cancel some existing orders to toy manufacturers. A spontaneous effect to manufacturers is a sales drop, as well as cashflow problems because of cancelled orders and inventory stocks. A late launch of a new product also shortens the product life. Port congestion similarly occurs in the Hong Kong terminal, incurring additional handling costs per container (The Hong Kong Shippers’ Council, 2014). The transaction costs from external environments or customer-manufacturer leverage can be very substantial to Toy Industry stakeholders.

Global competition and growing customer expectations are pressuring manufacturers to improve their reliability and flexibility (Zhao et al., 2008). Dallas (2014) finds that overseas customers are apprehensive to suppliers in Mainland China and prefer working through intermediaries in Hong Kong. Dallas (2014) unveils the resistance of overseas buyers to involve Mainland China manufacturers in product design, branding, engineering, logistics and marketing, as buyers perceive them to threaten their core competencies. The intermediary firms in Hong Kong, which perform service functions as trading companies, buying offices or agents, have robust links with overseas buyers and form a formidable barrier to manufacturers (Dallas, 2014). As discussed previously
in Sections 2.5 and 2.6, the advantages of the Hong Kong legal and institutional system, as well as the working culture and free economy, are facilitating the evolution of the Hong Kong Toy Industry into an import/export servicing role while leaving the manufacturing to Mainland China (Chan, Chin & Lam, 2007; HKTDC, 2013).

The Hong Kong import/export servicing intermediaries, whether former manufacturers or agents sub-contracting to various Mainland China factories, provide professional sourcing knowledge and an understanding of China’s manufacturing status, work efficiency, response times, rules and standards (Chan, Chin & Lam, 2007; FHKI, 2010). They provide economies of scale in the buyer’s transaction costs for searching, negotiating, monitoring and enforcing (Zhao et al., 2008). In a buyer-seller relationship (retailer to market consumer (B2C), retailer or trader to toy manufacturer (B2B)) there exists bilateral dependence in each governance structure incurring transaction costs (Williamson, 1981, 2002). Buyers use coercive power to force manufacturers to comply with their requirements and to gain an advantage in a customer-seller relationship (Zhao et al., 2008). Retailers have bargaining power over suppliers because they control retail to consumers, advertising and promotion, and influence the product’s success or failure (Chen, 2010). Zhao et al. (2008) find that firms’ collaboration is strong when scarce resources are relied upon, and unstable relations exist when there is asymmetric power in a partnership. Buyers control purchase orders and exercise protective barriers, such that Mainland Chinese manufacturers find themselves with restricted access to learning and technology (Dallas, 2014).
Nooteboom (1993) states that the extent of a buyer’s dependence on a supplier is determined by the availability of alternate products. The dependence of a buyer is subject to uniqueness of the supplier’s product, according to their respective product differentiation and elasticity of demand. Shou et al. (2013) observe that firms are willing to share information when there is a factor of scarce resource reliance, as the Resource Dependence Theory (RDT) assumes, and firms are more willing to partner when there are asymmetric specific assets, based on the strategic action view. Dallas (2014) finds that buyers will grant trusted suppliers access to sensitive and proprietary information. This information sharing includes project, product design, technology, market forecasting, production, inventory and sales performance, all of which facilitate manufacturers to formulate corporate marketing strategies (Chung, Yam & Chen, 2004; Dallas, 2014; Lau, Tang & Yam, 2010). Hong Kong and Taiwanese companies, with service quality and relationship ties with overseas buyers, benefit most from this business arrangement, while Mainland Chinese firms receive little support from overseas buyers (Dallas, 2014).

Chen and Miller (2010) state that, for a competitive strategy with relational complications, Chinese firms are deeply affected by Confucian corporate culture relating to ‘collaboration for win-win cooperation’, and refrain from aggressive competition that creates enemies. The Confucian culture embraces a long-term strategic view to obtain feedback from stakeholders and to progress gradually to a solution which satisfies the majority (Chen & Miller, 2010). However this harmonious approach slows the efficiency of product development in a toy firm. Many ODM manufacturers are diversified from OEM (HKTDC, 2008). The pursuit of an ODM strategy, when applied to Chinese OEM toy manufacturers who are diverse in size and
mostly family owned businesses (Peng & Chen, 2011), may encounter conservative resistance. Step-by-step gradual development for SMEs is a modest strategy to overcome resistance that may occur with innovation which is too radical or implemented too quickly (Sun et al., 2012), but it may also slow down the pace of development.

The study of power in an organization helps in the understanding of its decision making in corporate strategy. Williamson (1981) agrees with the RDT view (that people possessing the power to control critical resources are influential), but more importantly, under the lens of TCE, powerful people determine corporate structure, rather than accepting power as the outcome. This efficiency is what Coase (1937) and Williamson (1981, 2010) use to identify the boundaries of a firm. Coase (1937) argues that, when the law of diminishing returns explains the effects influencing the boundary of a firm, why not accept one firm handling production and another handling the market. Such an idea can be extended to Hong Kong toy manufacturers running OEM and ODM. According to Coase (1937) and Williamson (2010), the answer can be found in a transaction cost study.

### 2.10 Gap Analysis and Research Questions

The PESTL study determines that Mainland China and Hong Kong have different issues encouraging and discouraging the Toy Industry. In Mainland China, there are: (a) new Labour Contract Laws; (b) the one-child policy (the threat of a population shortage making it difficult to grow the economy and increasing the social burden); (c) factory compliance (factory certification, pollution control, and product safety);
(d) economic policy (RMB policy and financing bias); (e) political policy to offset trade disputes; (f) taxation policy (e.g. VAT rebate reduction, finance tax increase); (g) Chinese relational culture as shaped by leaders of government and enterprises; (h) a lack of quality infrastructure (electricity supply, internet control policy); (i) inadequate protection of intellectual property; (j) insufficient visibility of rules; and (k) China officials abusing power. All of these issues have one thing in common, namely, the institutional influences of the Mainland Chinese government and its influence on Hong Kong. Some influences are the result of the central government preferring political stability rather than allowing the market to regulate the economy (Coase & Wang, 2013; Eichengreen, 2013). As described by Zucker (1987), institutional influences are not always public, but may also be private (relating to individuals) or formal and informal (social and relational). These rules and policies often cause delays and maladaptation (even struggles) for toy manufacturers, incurring costly transaction costs (Williamson, 2010). Although China’s policies and rules are intended to facilitate trade and industry (for example the RMB internationalization policy for transaction convenience, the setting up of MOST, SIPO, and other support and financial schemes to develop technology and innovation), these policies and rules also contain adverse effects on the manufacturing industry and introduce social costs.

From the Hong Kong point of view, there is a mixture of Chinese culture and Western culture (from British colonial administration of approximately 150 years). China’s government has vouched to support existing Hong Kong systems (legal and administrative) for 50 years, enabling investors to continue business as usual (Xinhuanet, 2014a). Hong Kong is still able to enjoy: (a) a capitalist free economy; (b) autonomous free flow of information and technology exchange; (c) favourable tax
policy; (d) supportive institutions and schemes to foster technology and innovation development; (e) geographical international port; (f) business and industry infrastructures; and (g) a robust location for trading and coordination (Dallas, 2014; HKTDC, 2008; Zhang et al., 2012). For the Hong Kong Toy Industry, Mainland China’s open policy enhances Hong Kong’s competitiveness in the market, providing low cost workforce and production (Zhang, Huang & Liu, 2012). All of these issues reflect one common characteristic - institutional influence that cannot be provided by the market (Coase, 1992). In general, Hong Kong is a place ‘engineered’ with efforts to attract business transactions.

Some bankers are conservative in financing toy manufacturers developing technology and innovation, perceiving them as risky (Sun et al., 2012), which reflects the strategic consideration of both banks and business firms, and their mindsets. Toy manufacturers also exhibit quite short-term mindsets. Hong Kong toy manufacturers involve more OEM than ODM and are conscious of the importance of investing in their own innovation and R&D capabilities (not reliant upon customer-provided designs) to sustain competitive advantage as a strategic consideration (Coase & Wang, 2013; HKTDC, 2013; Sun & Wing, 2005, Sun et al., 2012). The short product life cycle of toys is not necessarily discouraging innovation, but is a positive motivation to toy manufacturers to develop more R&D and more ODM skills. Because of keen competition, and customers holding powerful leverage over toy manufacturers, the toy manufacturers are in a passive and difficult position. Both customers and institutions are exerting pressure on the toy manufacturers to comply with their rules or receive no business (Connelly, Ketchen Jr. & Slater, 2011). For example, the requirements of the world’s leading toy retailer, Toys R Us, encompass toy design, toy safety and the
manufacturing process, in that toy manufacturers must comply and bear the costs involved (Toys R Us, 2010). Toy manufacturers understand the future of OEM is less promising, and ODM development is regarded as a hope to improve the sustained competitive advantage of the Hong Kong Toy Industry (HKTDC, 2008, 2013; Sun & Wing, 2005; Sun et al., 2012; Zhang, 2011).

Some researchers find that manufacturers are too busy to handle the various daily problems, cost control, customer and institutional compliances, and orientation for long term sustainability. It would seem there is a dilemma of ‘ambition versus ability’ within the toy manufacturers, which is associated with transaction costs of exchange (Coase, 1992) and ROI (Hart & Moore, 2007) that may weaken the propensity of manufacturers to enhance their capability to develop R&D and innovation. Although there are difficulties arising from government, institutions, customers and the environment, there are still several supportive schemes and systems available. Such support is not fully utilized or is misaligned in that it does not benefit the Toy Industry correctly or significantly. What are the barriers hindering the toy manufacturers to receive this support? A gap exists between the available government institutional policy and environment to foster innovation and technology development in the Toy Industry in order to enhance capability and competitiveness, and the fact that toy manufacturers undertake more OEM (less design and R&D) than ODM (more design and R&D). From the literature review of PESTL, together with strategic and transaction costs studies of the Toy Industry, conducting in-depth interviews with toy manufacturers is recommended to explore the root of the problem. Therefore, the research questions are based on Toy Industry behaviour, in particular, undertaking more OEM than ODM, to explore problems within the Hong Kong Toy Industry.
Research Questions:

RQ1: What are the key factors influencing the Hong Kong Toy Industry which involves more OEM than ODM?

RQ1.1: For the Hong Kong Toy Industry being more OEM-focused, what are the key reasons?

RQ1.2: For the Hong Kong Toy Industry that undertakes more OEM than ODM, what are the key problems?

RQ1.3: For the propensity of Hong Kong toy manufacturers to invest in ODM, what are the key factors?

RQ1.4: For Hong Kong toy manufacturers developing ODM, what are the major difficulties they encounter?

RQ1.5: When Hong Kong toy manufacturers encounter difficulties in ODM operation, what can they do?

2.11 Conclusion and Contribution

A bilateral dependent relationship exists between Hong Kong and Mainland China. The literature review of PESTL, with particular emphasis on strategic and transaction costs dimensions, reveals factors encouraging and discouraging the Toy Industry to
enhance its capability for design and innovation development to sustain competitive advantage. A gap is found where systems and conditions are favourable for such ODM ‘capability’ development, although Hong Kong toy manufacturers undertake more OEM than ODM. This research explores the reasons and factors influencing this phenomenon in the Hong Kong Toy Industry and attempts to locate the root of the problem. The findings provide recommendations to the Toy Industry and the government to improve the Hong Kong Toy Industry so that its success can continue.
Chapter 3  Research Methodology

3.1  Introduction

Qualitative research is used to explore the factors which influence the Hong Kong Toy Industry to engage in more OEM than ODM. From the literature review, gaps are discovered enabling new concepts to be identified and developed (Morse, 2004). PESTL and strategic factors influence Hong Kong toy manufacturers to develop innovation, technology and R&D capability. With strong institutional influence from the Toy Industry, there are barriers hindering toy manufacturers receiving support to enhance their innovative capability to sustain long term competitiveness. Case study research, based on interviews with selected toy manufacturers, is adopted. This chapter outlines the research methodology.

3.2  Methodology

The research process includes: (a) studying research questions; (b) selecting the method of study; (c) sampling; (d) data collection; and (e) measurement and analysis. The objective is the building of models and theories. The Doz (2011) model of the ‘Theory Building Ladder’ (see Figure 3-1) is frequently adopted, commencing with interviews to collect primary data (case study) then, with rich data to analyse, to categorize and generalize concepts and models, leading to theory development.
3.2.1 Qualitative Research Method versus Quantitative Method

There are two mainstream methods of research – quantitative and qualitative. Quantitative research (e.g. survey research) stresses the relationship between measurement and analysis among variables by a hypothetical-deductive approach, using codes, counts and values to quantify phenomena (Rynes & Gephart Jr., 2004).

Qualitative research makes use of case studies through interviews, questions and observations to collect primary data to study social and cultural phenomena (Myers, 1997). Doz (2011 p. 583) states that “Qualitative research is uniquely suited to ‘opening the black box’ of organizational processes, the ‘how’, ‘who’ and ‘why’ of individual and collective organized action as it unfolds over time in context”. Rich and thick data collected from interviews: (a) reduces the reliance upon and restriction of predetermined theories; and (b) provides the basis for synthesizing theories into new conceptual developments (Doz, 2011). From the literature review, it is found there are
several possible factors influencing toy manufacturers’ decisions and behaviour including: (a) why they engage more OEM than ODM; (b) what barriers restrict them from involving more ODM; and (c) whether there are misalignment issues leading to insufficient support.

Quantitative research is less useful for the study of sourcing factors in China based on Cronbach’s alpha reliability test (Chan, Chin and Lam, 2007), who report that the influencing factors are closely related and interfere with each other, causing difficulty in generating good regression models (the basis of quantitative research). A qualitative research method (rather than quantitative) is adopted in this investigation because qualitative study is particularly useful in providing rich and detailed descriptions catalytic to conceptualization (Appleton, 1995). Qualitative research yields more first-hand experience and uncovers paradoxes and contradictions which create new theories (Doz, 2011).

3.3 Paradigm Location

All qualitative research is based on certain recognized assumptions, or ‘paradigms’, to constitute valid research (Myers, 1997). Kuhn (1970) defines a paradigm as “an accepted model or pattern” (p. 23) which “stands for the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community” (p. 175). According to Myers (1997), qualitative research can be in the paradigm of positivist, interpretive or critical (See Figure 3-2).
Paradigm location in case study interviews is both interpretive and positivist. According to Hassard (1991), the interpretive paradigm concerns social reality “although possessing order and regulation, does not possess an external concrete form. Instead it is the product of intersubjective experience … the social world is best understood from the viewpoint of the participant-in-action” (Hassard, 1991 p. 277). Interpretivists believe the only way to understand a phenomenon is to explore and to interpret the meanings that people assign to it (Bunduchi, 2008). Case study is also positivist. The positivist paradigm assumes that reality can be described by measurable properties that are objectively given (Myers, 1997), and advocates the use of natural science to examine social reality to gather facts and knowledge (Bryman & Bell, 2011).
3.4 Choice of Qualitative Research Method – Interviews and Multiple Case Studies

Rynes and Gephart Jr. (2004) introduce some popular research methods for qualitative study. Interviews are face-to-face interactions where the researcher asks questions of respondents to answer. Focus groups are groups of participants who respond to questions collectively rather than individually. The observational method studies the social interaction with participants and involves some counting. Ethnography involves study through immersion into an environment and culture. Case study examines a single event as it changes over time. Case studies can also be in the form of multiple case studies.

This research adopts six in-depth face-to-face interviews with senior executives of Hong Kong toy manufacturers to obtain primary data, namely, their opinion of OEM and ODM. Each interview is a stand-alone case study, and the individual face-to-face interview encourages interviewees to share their experiences and descriptions of phenomenon, enabling the researcher to uncover the thematic meaning and to delve deeply into the related personal and social matters (Crouch & McKenzie, 2006; DiCicco-Bloom & Crabtree, 2006). Each case study is based on a semi-structured interview, exploratory in nature. Semi-structured interviews enable a researcher to interact with the respondents directly and intensively (two-way communications) to explore the meaning of embedded data (Appleton, 1995; Bundachi, 2008). Departures from the planned interview schedule during the study, allow the researcher to make use of these digressions to obtain richer and more interesting stories (DiCicco-Bloom & Crabtree, 2006). Case study, as a research strategy, examines the real-life context of
a phenomenon especially when it is unclear (Yin, 1981). This research involves multiple case studies by means of interviews, with questions and observations. This kind of inductive case study often generates theory that is novel and empirically valid (Eisenhardt, 1989). Case study determines ‘what’ things exist rather than ‘how many’ (Crouch & McKenzie, 2006), emphasizing particularization rather than generalization (Bryman & Bell, 2011).

The interview process is an obtrusive method. However, interviews enable a researcher to establish relationships with respondents through dialectic questions and answers to generate an analytic, inductive and exploratory study rather than merely quantitative reporting (Crouch & McKenzie, 2006; Rynes & Gephart Jr., 2004).

3.5 Sampling

The choice of sampling includes probability sampling (or random sampling) and non-probability sampling. A non-probability purposeful sampling method is used to select six Hong Kong toy manufacturers, inviting their senior executives to participate in the interviews. Non-probability sampling includes quota sampling, which has a pre-determined sample size, and snowball sampling which is the referral of participants, one to another (Bryman & Bell, 2011). Non-probability sampling in qualitative research, with an exploratory in-depth insight of respondent feedback, has a greater propensity for theoretical orientation over statistical sampling (Bryman & Bell, 2011). Random sampling (probability sampling) is not necessary, or even not preferred in a qualitative case study, as the objective of theoretical sampling is to select cases that are more certain to replicate or extend the emerging theory (Eisenhardt, 1989).
Because of their size, small samples are often criticized as limiting acceptability. However, a small sample size for in-depth interview research allows free-flow message exchange, exposing the respondent’s authentic subjective feelings and reactions, which is the basis of epistemological foundation (Crouch & McKenzie, 2006). Eisenhardt (1989) states that it is difficult to generalize convincing theory for less than four interviewees, and there may be problems with handling the complexity and vast amounts of data for more than ten interviewees. Another view of appropriate sampling size relates to the purpose and complexity of the study. Instead of quantitative statistical parameters that may waste research funds or participants’ time (ethical issue), data saturation is the signal for adequate and valid content sampling (Francis, Johnston, Robertson, Glidewell, Entwistle, Eccles & Grimshaw, 2010). The case study sample size of six homogenous types (toy manufacturers) allows the researcher to develop meaningful themes and useful interpretations (Guest, Bunce & Johnson, 2006). Eisenhardt (1989) believes theoretical saturation is possible between four and ten cases, considering constraints of time and cost, and quotes Burgelman’s research of six cases conducted by a single investigator as a vivid example (Eisenhardt, 1989, p. 535, Table 2).

The sample of six Hong Kong toy manufacturers is sourced from the database of the ICTI that contains approximately 2,300 toy manufacturers (ICTI Care, 2014). The ICTI database is adopted because China factories are generally diverse in size, ownership and resources (Peng & Chen, 2011), and it is difficult to find a representative list to capture properly established Chinese toy factories. The ICTI database registrants reflect toy manufacturers that are better organized in structure,
willing to register legally with the government and be audited by ICTI, thus eliminating illegal and sub-standard factories. The ICTI’s seal is widely accepted by major toy companies and retailers as legitimacy of a qualified toy manufacturer (ICTI, 2014b). Although the employee count of a factory may vary according to increased temporary workers during peak production seasons, the ICTI requirement (based on a factory’s government registration and social insurance head count) is the most reliable system available in the market to describe toy factories (ICTI, 2014a). Most of the sampled toy manufacturers are small-medium size employing fewer than 2,500 employees per registered factory address (ICTI Care, 2014). This selected segment enhances the research representativeness. Figure 3-3 shows factory employee counts adapted from the ICTI Factory Database.

Figure 3-3  ICTI Factory Database

<table>
<thead>
<tr>
<th>No. of employees hired</th>
<th>Factory count</th>
<th>Factory %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 10000 employees</td>
<td>2</td>
<td>0.1%</td>
</tr>
<tr>
<td>5000-9999 employees</td>
<td>5</td>
<td>0.2%</td>
</tr>
<tr>
<td>2500-4999 employees</td>
<td>26</td>
<td>1.1%</td>
</tr>
<tr>
<td>1000-2499 employees</td>
<td>140</td>
<td>6.0%</td>
</tr>
<tr>
<td>500-999 employees</td>
<td>212</td>
<td>9.1%</td>
</tr>
<tr>
<td>Less than 500 employees</td>
<td>1950</td>
<td>83.5%</td>
</tr>
<tr>
<td>Total :</td>
<td><strong>2335</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

ICTI Factory Database - Factory Registrant and Employee Counts
Source: Adapted from ICTI Care (2014) Factory Database.

Purposive sampling using semi-structured interviews ensures the sampled interviewees can articulate their experiences and thoughts step-by-step, enabling the researcher to understand the phenomenon and concept, facilitating in-depth exploration for qualitative study (Appleton, 1995). The interviewees must be the owners, senior
executives, CEOs, directors, general managers or senior managers with detailed knowledge and work experience in the Toy Industry to answer the questions.

3.6 Data Collection Method

Data collection starts with an interview invitation. In preparing the interview invitation, it is important to craft the instruments and interview protocols in advance, especially the in-depth semi-structured interview to include some predetermined open-ended questions as well as other questions that may emerge from the dialogue (DiCicco-Bloom & Crabtree, 2006). The literature review provides a guide to research questions which is used to develop the interview questions incorporated into the interview protocol of this research.

3.6.1 Preparation of Interview Protocol

The interview protocol is a paper for the interviewee to study and follow during the interview. This protocol provides consistency and direction of how the interview progresses, and reduces bias. Because of the exploratory nature of the research, some pre-set open-ended questions allow respondents to express their opinions freely, which reduce respondents’ complaints of closed questions requiring oversimplified answers, or the misinterpretation of answers by researchers (Yin, 1981). The interview protocol begins with a brief introduction to the Hong Kong Toy Industry, followed by the interview questions.
3.6.2 Interview Questions Design

The interview questions (see Appendix 3) are developed based on the research questions relating to the Hong Kong Toy Industry being more focused on OEM than ODM. The first part of the interview is an introductory enquiry as to the interviewee’s company and background (OEM/ODM/OBM type, how long in operation, working experience, employees count range, category of toys producing). The study is anonymous (an ethical consideration) and each question is accompanied by a range of options for the interviewee to select instead of providing descriptive or numerical answers.

The second part of the interview contains nine questions. The first question concerns the Hong Kong Toy Industry, including Mainland China manufacturing. Interviewees are shown a 2013 survey from the HKTDC stating that the involvement of OEM at 91% is more than ODM at 68% in the Toy Industry (note: the percentages indicate that some toy manufacturers are involved in both OEM and ODM). The researcher then asks the interviewees what are the advantages attributed to this greater OEM involvement. This question is intended to explore OEM advantages perceived by the toy manufacturers. Then similarly, the second question asks the interviewees the ODM advantages they perceive.

The third question is based on the advantages of both OEM and ODM, and interviewees are asked to discuss problems in the Toy Industry being more OEM-focused than ODM. While acknowledging the interviewees’ answers may be subjective and restrictive due to the asset specificity of their own companies, the
fourth question presents the PESTL dimension, as well as strategic factors, to obtain opinions relating to greater OEM involvement than ODM. The fifth question asks interviewees to comment by quoting other researchers’ findings that prevailing innovation in the Hong Kong Toy Industry is often modification of existing products, lacking serious breakthrough or innovative capability. Question six asks interviewees for a general discussion on Hong Kong Toy Industry problems as perceived from the findings of the earlier questions. Question seven asks interviewees to think of the critical factors affecting ODM development in the Hong Kong Toy Industry, and the difficulties toy manufacturers encounter. Questions eight and nine ask for interviewees’ recommendations to overcome ODM difficulties, whether or not they engage in ODM.

These nine questions are not simply to collect interviewees’ answer, but are also helpful in understanding the toy manufacturers’ mindsets by observation throughout the interviews (Eisenhardt, 1989; Rynes & Gephart Jr., 2008). The interview questions are exploratory in nature (interpretive paradigm), and reliably report the respondents’ subjective feelings (positivist paradigm) (Appleton, 1995; Myers, 1997).

The third part of the interview questions relates to transaction cost theory. From the literature review, transaction cost considerations are closely tied to toy manufacturers’ propensity to develop ODM, as well as affecting their investments in and implementations of innovation, R&D and technology capabilities (Chen, 2010; Coase, 1960, 1992; Dahlander & Gann, 2010; Hart & Moore, 2007; Qu & Brocklehurst, 2003; Wang et al., 2011; Williamson, 2010; Zhao, et al., 2008). These questions are an exploratory approach to obtain the interviewees’ opinion of the role of transaction
costs in the Hong Kong Toy Industry engaging more OEM than ODM. The purpose of
the questions is orientated towards theoretical application for better identification of
important variables and why they relate to this study (Klein & Zedeck, 2004), while
still retaining free-flow opinions from the respondents.

3.6.3 Operationalizing the Interviews and Procedures

The location and time of interviews are scheduled in advance. Invitations (including
participant information statements ‘PIS’, see Appendix 1) are sent to targeted
companies selected from the ICTI database. Following this, the researcher schedules
interview venues, dates and times with interviewees. The interview is conducted at the
interviewee’s office, or a place suitable and comfortable to the interviewee. Before the
actual interview commences, the researcher seeks the written consent (participant
consent form ‘PCF’, see Appendix 2) from the selected company owner, and the
employee being interviewed where the interviewee is not the company owner. Where
interviewees do not speak English, any required Chinese, English/Chinese bilingual
documents are made available (translations by a certified translator in Hong Kong).
The researcher conducts the interviews, and is the person who transcribes the audio
tapes to text.

After the PIS and PCF are completed, the Interview Protocol (see Appendix 3) is
provided to the interviewee. The interview progresses according to the interview
protocol with questions for interviewees to answer. The answers are recorded both on
tape recorder and by note taking (manuscript). If an interviewee refuses tape recording,
then only notes are taken. During the interview, the researcher is flexible with regard
to the data collection, to understand each individual case in-depth (Eisenhardt, 1989). On completion of the interview, brief manuscript notes are provided to the interviewee to ensure the accuracy of the answers. The interviewee signs the notes as consent to the accuracy of the data. The data obtained from the qualitative face-to-face interview is the primary data for the research and exhibits a high degree of validity (Myers, 1997).

3.7 Data Analysis and Measurement

The six interviews (case studies) embrace cross-sectional research design aimed at producing associations through the collected data (Bryman & Bell, 2011). Conversational analysis helps understand the meanings derived during the sequential observation of talk and conversation during the interview (Myers, 1997; Rynes & Gephart Jr., 2008). Data and analysis mutually affect each other. The tape recording (transcribed) and notes taken during the interviews are analysed into categories and nodes, with the assistance of NVIVO (QSR, 2014). Hermeneutics, concerning the meaning of dialogue or text, provides the grounding of interpretive research (Myers, 1997).

Each interview is regarded as a stand-alone case (within-case analysis), enabling its unique pattern of data to emerge for subsequent generalization in cross-case comparisons (Crouch & McKenzie, 2006). Cross-case analysis: (a) identifies similarities and differences (Eisenhardt, 1989; Yin, 1981); (b) achieves a better understanding of phenomena; and (c) allows subtle meanings to emerge. All of these generate common explanations ready for mapping and model generation in the next
stage (Yin, 1981). Qualitative data that confirms emerging relationships provides confidence of validity. Data that does not confirm relationships provides an opportunity to refine theories. They both facilitate an understanding of the dynamics of relationships and internal validity (Eisenhardt, 1989). Additionally, it is important to compare research findings (concepts) with the existing literature for conflicting views, pushing the researcher’s creativity to adjust generalization boundaries and to discover underlying reasons, eventually to attain less bias and stronger internal validity (Eisenhardt, 1989).

3.8 Validity and Reliability

External validity concerns the fitness of findings and how well they represent the subjects and situations. Internal validity refers to the creditability of research through the researcher’s interfaces with the study and the participants (Appleton, 1995). The current qualitative research study incorporates validity considerations. Qualitative inductive research applied in this study permits repeated contact between respondents and investigator to enhance validity and reliability (Crouch & McKenzie, 2006). The strict adherence to the interview rules (interview protocol), the use of audio tape recording and transcribing, the interviewee’s confirmation of manuscript notes and analysis using NVIVO (QSR, 2014) testify the research reliability (Appleton, 1995). The research findings are based on evidence, and are consistent with empirical observation (Eisenhardt, 1989). The interviews and multiple case studies (cross-case studies) identify similarities and differences, reduce bias and enhance construct validity (Eisenhardt, 1989; Yin, 1981). Overall, the in-depth semi-structured interviews contribute a better understanding of the Hong Kong toy manufacturers’
preference of OEM more than ODM, subsequently allowing Hong Kong Toy Industry problems to emerge. Because of the approach to this research, its validity and reliability are established.

3.9 Ethical Consideration

This research requires ethical considerations. Bryman and Bell (2011) stress that research should not cause harm to any participants (namely, no harm and no recourse that will affect a participant’s life, job, health or safety). The privacy of the participants, interviewed companies and their affiliated proprietary information should be protected and respected. Consent of participation in the interviews must be clear because interviews are obtrusive. Interview invitations must be sent in advance, and only after written consent can the research commence. The research must be honest, ensuring there is no covert observation or spying. The interview venue should be a place provided or agreed to by the interviewees with a comfortable atmosphere without stress, and avoiding access to sensitive areas of the interviewee’s company premises without formal permission in advance. Objective words and contents should be maintained throughout the interview, without prejudice of gender or race. The researcher must understand the legal requirements and institutional rules applicable to the region so that a proper and smooth study can be conducted. This qualitative research is duly assessed and approved by the Human Research Ethics Committee of the University of Newcastle Australia, reference number H-2014-0215 (see Appendix 4).
3.10 Conclusion of Research Method

Klein and Zedeck (2004, p. 931) state that “Research that is guided by theory, or that develops theory, generates understanding and excitement”. Qualitative research is appropriate to study the Hong Kong Toy Industry to diagnose problems and unveil contributing factors, so as to provide insights for strategy formulation to solve problems, or at least to improve problematic situations, and to assist the Hong Kong Toy Industry to sustain competitiveness in the market.
Chapter 4  Analysis of Research Data

4.1  Introduction to the Interview and Research Data Analysis

Six semi-structured interviews were conducted in September and October 2014 to obtain data for the research. These six toy manufacturers, selected from the ICTI database, are Hong Kong based companies with manufacturing facilities in Mainland China. They have employee counts ranging from 400 to 8,000. Some manufacturers own more than two facilities. One manufacturer is a Hong Kong publicly listed company and the other five are private limited companies. All six interviewed manufacturers have OEM involvement. Four of the manufacturers are also engaged in ODM, while two are not. Of the four ODM manufacturers, two are also involved in OBM.

The interviewees are either proprietors or company directors who can provide a representative and reliable view based on their positions and experience. The six sampled manufacturers are homogenous in background and capacity and are able to contribute meaningful interpretations and answers (Guest, Bunce & Johnson, 2006). Additionally, one interviewee has a family-owned business background. The data collected is analysed and compiled using NVIVO (QSR, 2014). By means of node functions, cross-case comparisons are used to quantify and generalize the thematic meaning from the interview data, so that similarities and differences can be identified (Crouch & McKenzie, 2006; Eisenhardt, 1989; Yin, 1981). Interviewee and company backgrounds, from the first interview question (Question A), are summarized in Figure 4-1 (see also in Appendix 5). For ethical and anonymous reason, the six toy
manufacturers are labelled as Manufacturer A, B, C, D, E and F.

Figure 4-1  Summary of the interviewed companies and interviewees

<table>
<thead>
<tr>
<th>Toy Manufacturer</th>
<th>OEM involvement</th>
<th>ODM involvement</th>
<th>Interviewee position</th>
<th>Years of company</th>
<th>Interviewee experience</th>
<th>Employee count (nearest hundred)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Yes</td>
<td>No</td>
<td>Proprietor</td>
<td>11-20 years</td>
<td>11-20 years</td>
<td>2500</td>
</tr>
<tr>
<td>B</td>
<td>Yes</td>
<td>No</td>
<td>Proprietor</td>
<td>21-30 years</td>
<td>21-30 years</td>
<td>2000</td>
</tr>
<tr>
<td>C</td>
<td>Yes</td>
<td>Yes</td>
<td>Proprietor</td>
<td>21-30 years</td>
<td>21-30 years</td>
<td>400</td>
</tr>
<tr>
<td>D</td>
<td>Yes</td>
<td>Yes</td>
<td>Proprietor</td>
<td>11-20 years</td>
<td>11-20 years</td>
<td>800</td>
</tr>
<tr>
<td>E</td>
<td>Yes</td>
<td>Yes</td>
<td>Director</td>
<td>over 40 years</td>
<td>11-20 years</td>
<td>8000</td>
</tr>
<tr>
<td>F</td>
<td>Yes</td>
<td>Yes</td>
<td>Director</td>
<td>over 40 years</td>
<td>1-10 years</td>
<td>1200</td>
</tr>
</tbody>
</table>

There are five research sub-questions (RQ1.1 to RQ1.5) in this study. These research questions are embedded in the interview questions to determine from the manufacturers the key reasons for the Hong Kong Toy Industry involving more OEM than ODM, and the key problems of this OEM-reliant phenomenon. This is to determine: (a) why do some toy manufacturers think ODM can improve the Toy Industry prospect; (b) what are the key difficulties in implementing ODM in the Hong Kong Toy Industry; and (c) how these difficulties can be resolved. The following discussions of the interview findings are interpreted in table format then accompanied with summarized explanation in each section.

4.2  Findings from the Six Interviews

4.2.1  Comparison of OEM and ODM, and the Key Problem of more OEM than ODM.

This section studies the manufacturers’ responses to the first three interview questions
relating to the advantages of OEM and ODM, and also the key problem of more OEM involvement than ODM (see Figures 4-2, 4-3 and 4-4 in Appendix 5).

In summary, OEM has easier entrance, fewer requirements and less inventory burden than ODM. OEM has faster cashflow payback than ODM, enabling OEM to function on low margins, and the possible advantage of economies of scale. ODM involves costly design equipment, staffing and uncertain design acceptance but is able to exert more autonomous resource control than OEM. ODM with design functions can ensure customer reliance better than OEM, providing opportunity for manufacturers to develop OBM. The problem of more OEM than ODM is a challenge to Toy Industry competitiveness because OEM impedes design and innovation which are important survival tools in the Toy Industry. OEM, competing solely on price, has little future. Overseas buyers generally perceive the China Toy Industry’s edge as production efficiency, downplaying innovative design capability.

4.2.2 PESTL and Strategic Dimension of more OEM than ODM

This section studies the manufacturers’ responses to more OEM than ODM in PESTL and Strategic dimensions. See Figures 4-5 to 4-9 in Appendix 5, where: (a) Figure 4-5 presents the Political/Legal dimension; (b) Figure 4-6 presents the Economic dimension; (c) Figure 4-7 presents the Socio-cultural dimension; (d) Figure 4-8 presents the Technical Dimension; and (e) Figure 4-9 presents the Strategic dimension.

In summary, the PESTL and strategic influences in the Toy Industry result in cost increases affecting Toy Industry competitiveness. China’s government policy
welcomes investment for immediate production efficiency, more than long-term innovation. Taxation (whether the China VAT rebate reduction or the lack of a taxation allowance on innovation investments in Hong Kong) upsets toy manufacturers. China’s labour shortage adds to the cost of manufacturing, as a consequence of: (a) the one-child policy; (b) participants moving from the manufacturing industry to the service industry; (c) a younger generation aligned to short-term goals; (d) labour laws; (e) minimum wages; and (f) increased welfare and living standards. China’s law enforcement is perceived as having low visibility and lacking intellectual property protection. Regarding compliance, manufacturers have China government factory certification and product safety, while customers have the factory audit program and toy safety testing. The economic environment (RMB fluctuation, RMB internationalization policy, and insufficient government stabilization of inflation measures) causes price increases, eroding the competitiveness of China’s manufacturing industry. Environmental challenges (increasing cost of staff and overheads, government expenses and compliance) shrink Toy Industry profitability.

Support to the Toy Industry and innovation development from the Hong Kong and Mainland China government is insufficient, although some superficial programs have been introduced. However misalignments are common and toy manufacturers are rarely benefited. The education system is too theory-oriented, lacking practicality, ignoring specialist Toy Industry education, focusing instead on the emergence of the more diversified financial and servicing industries. From a strategic point of view, customers have a strong bargaining power over manufacturers, seeking unreasonably low prices, cost absorption and customer protection, which restricts toy manufacturers to core activities and handling mechanical and operational functions. Toy
manufacturers lack creative learning and concentrate on toy modification, minor extensions and “me too” products instead of serious innovation. OEM competes solely on price; while ODM includes design functions to leverage a wider customer base than can be achieved with OEM. The competitive edge of Hong Kong is quality of management and integrity, while that of Mainland China is efficiency of production. The traditional Chinese culture of hard work and group participation favours Toy Industry prospects. However, Chinese culture also displays a low respect for the protection of intellectual property, and counterfeiting is a serious problem in Mainland China. Unlike the Chinese, the West has a different culture which protects innovation and creativity. In addition, the quality of Western design and technology is more advanced than in China. Chinese industry is relatively weak in creative idea generation and toy manufacturers are generally conservative, risk avoiding and tend to discourage innovation.

4.2.3 Norm of Modifying Existing Products, and Reasons

This section studies the manufacturers’ responses to the norm of modifying existing products found in the Toy Industry (See Figure 4-10 in Appendix 5).

In summary, all manufacturers unanimously agree that the existence of modifications or “me too” products reflects the toy manufacturers’ inadequacy of marketing ideas, opportunity niches, grasp of technology and risk avoidance, consequently affecting sales performance. Innovation quality cultivation in Hong Kong is weak and misaligned compared with foreign companies. Buyers have the power to select toy manufacturers and to demand that they follow instructions regardless of the extent of
innovation or “me too” products. There are inconsistent definitions of innovation in the market. Toy safety compliance sets boundaries for toy design (toys specificity) and toy design must also consider different age groups. “Me too” products lack the feel of new designs and affect the Toy Industry’s prospects.

4.2.4 Problems Facing Hong Kong Toy Industry and Stakeholders

This section studies the manufacturers’ responses to the problems facing the Hong Kong Toy Industry, and those involved in it (the stakeholders) (See Figure 4-11 in Appendix 5).

The data collected in Section 4.2.4 reflects several key problems facing the Hong Kong Toy Industry. The Toy Industry has fewer participants, as a consequence of the one-child policy, labour law requirements and social change. Toy Industry competition is very keen, but compliance requirements are high and costs increase for various reasons. It is difficult for customers to accept price increases, as there are always cheaper offers in the market. This low profitability means that manufacturers lack money for innovation. This is a survival problem facing the Toy Industry and toy manufacturers, exacerbated by inadequate government support, the overseas market situation and manufacturers’ risk avoidance. Strong customer bargaining power is seen from dominant private brands. This reflects insufficient quality of toy manufacturers’ own designs. Chinese creative idea inspiration is generally weaker than that of the West, and hi-tech products are challenging the traditional Toy Industry’s market share.

From the interview questions, Toy Industry stakeholders include toy manufacturers,
suppliers, governments, customers, parties in the China supply chain, external creative idea sources and, in another perspective, employers, employees, designers, engineers and merchandisers.

4.2.5 Key Factors and Difficulties Affecting ODM

This section studies the manufacturers’ responses to the key factors and difficulties affecting ODM development in the Hong Kong Toy Industry (See Figure 4-12 in Appendix 5).

In summary, the major factors affecting ODM are cost control and cashflow which are the result of competition, cost increases, low profitability, lack of government support and financing difficulties causing a shortage of resources, effort and finance for toy manufacturers to develop ODM. Design acceptance relates to the quality of design and foreign designers are stronger than those from Hong Kong because they work directly with customers. Hong Kong designers do not understand overseas markets and customers’ needs and are caught between Western and Chinese ways. Innovation and design are generally perceived as risky investments, and personnel to develop and implement them are scarce. Other countries like the U.S.A., South Korea, Singapore and Taiwan have government support for specific industries. Hong Kong’s support of the Toy Industry is insignificant, and there is little specialist education. The Hong Kong government’s Science and Technology Park provides little support to the Toy Industry, and that support is misaligned. China’s support of the Toy Industry is also minor. The overall effect of the above is that the Toy Industry does not have the ability to handle large hi-tech projects.
4.2.6 ODM Implementation, Advantages, Problems To Be Overcome

This section studies the manufacturers’ responses to the advantages of ODM and identifies difficulties during ODM implementation (See Figure 4-13 in Appendix 5).

In summary, ODM has the advantages of enhancing manufacturers’ capability and flexibility, providing more service opportunities to customers and better ROI than OEM. ODM requires the establishment of an R&D department, product research and the attendance at trade fairs to enrich design ideas and marketing techniques. ODM requires monetary investment (which causes difficulties for manufacturers) for test equipment, expertise, licenses or patents, tooling, machinery, advertising and promotion to attract buyers. ODM introduces a staffing problem in the supply of quality ODM designers. Hong Kong lacks ODM designers within the Toy Industry. Many manufacturers source new graduates from Mainland China and train them in China. Government support of Toy Industry innovation and specialist education are inadequate, unlike overseas with professional university degrees in toys design. Sources of innovation can be internal (training quality designers in innovation or sending staff abroad to learn) or external (agents or customers). Safeguards are required for external agents. There is also the problem of long processing times for intellectual property registrations against the short product lives of toys. The strong demand for quality products from customers and the market signals the toy manufacturers to work hard with innovative design and take advantage of market opportunities. The concepts of ‘quality’ and ‘investment’ are also sources of difficulty. Developing ODM requires one to handle people appropriately, establish relationships
and work with partners, no longer the traditional Chinese way of simply working hard.

4.2.7 Transaction Costs in ODM and OEM

This section studies the manufacturers’ responses to the transaction costs involved in ODM and OEM Toy Industry (See Figure 4-14 in Appendix 5).

In summary, transaction costs in ODM and OEM differ in terms of: (a) product and market research; (b) marketing; (c) engineering; (d) technology; (e) overheads; (f) compliance; (g) quality; (h) factory certification; (i) price negotiation; and (j) indirect costs associated with staffing. OEM does not involve design. ODM does, and the transaction costs in design and marketing, together with the uncertainty of design acceptance and ROI, can be very substantial and discourage innovation and ODM development. ODM has ex-ante transaction costs, e.g. tooling, materials, hi-tech development, legal issues, safeguarding designs, patents and licences. ODM has ex-post governance transaction costs, e.g. potential inventory as a result of minimum procurement and production according to manufacturers’ own design. OEMs simply produce what customers order.

4.2.8 Conclusion to the Interview Findings

Figure 3-1 presents the Theory Building Ladder (Doz, 2011) where rich data from qualitative interviews form stories and are then further categorized and defined to craft a conceptual map for discussion. The thematic data from the interviews (shown in Figures 4-1 to 4-14 in Appendix 5) is categorized into selected topics for further
discussion, as illustrated in Figure 4-15.

Figure 4-15 Model of Interview Data Discussion Process.

4.3 The Workings of OEM and ODM, and Institutional Compliance

From the summarized interview response in Section 4.2.1, all manufacturers agree that OEM has simpler entrance requirements than ODM. Compared with ODM, OEM does not involve design and demands a lower technical design requirement in R&D, overheads, equipment, expertise and the talents of designers and engineers. OEM provides manufacturers with a more stable operation to run at a low profit margin. When there is a large order, economies of scale allow OEM manufacturers to improve
efficiency and profitability. Furthermore (from Section 4.2.6) ODM manufacturers, though requiring more costly investment in design and testing equipment, can attract more business opportunities than OEM manufacturers who are solely in production. OEM is a manufacturing business, while ODM involves design and is both a manufacturing and an innovation business with better sustainability and survival opportunity than OEM.

From Section 4.2.2, all manufacturers feel they are invariably bound by specific requirements and responsibilities from government and buyers so that the toys can be sold in the market. Manufacturer E comments that buyers’ bargaining power is strong, as they place orders with the toy manufacturers they like, and naturally exercise ‘ruling’ over toy manufacturers for compliance, or no business (Chung, Yam & Chan, 2004). Buyers inform toy manufacturers and the Toy Industry what products are required in the market, the quantity involved, expected shipping dates and the price of the item. OEM manufacturers are generally passive in business negotiations and are significantly influenced by the buyers. Manufacturer A says OEM manufacturers compete on price, quality and service with rival manufacturers and bear full responsibility if there is any product failure, shipment delay or quality lapse. Buyers are “price takers” and can readily switch their designed projects to other OEM manufacturers. Manufacturers have very little room in which to turn except to battle for lower cost, or they may possess leveraging power with proprietary designs, patents or technology.

ODM manufacturers can sell products at a better margin than OEM because of the added value design service. ODM manufacturers with enhanced marketing experience
can pursue further with their own branded products (OBM), using direct marketing to build customer relationships to capture control and improve profitability. OBM, if successful in acquiring consumer loyalty, can alleviate pressure from private brand competition (Manzur et al., 2011). Section 4.2.1 indicates that ODM manufacturers can utilize resources better than OEM by consciously knowing their own design deployment, rather than relying on customer specific requirements that may go beyond OEM manufacturers’ expectations. ODM autonomous cost control in product design and manufacturing allows manufacturers to follow their own budgets tailored to manufacturers’ own strengths and resources rather than be driven by customers.

ODM manufacturers have less opportunity to share tooling or development costs and resources with other projects, while ODM manufacturers know that design and resources may be shared with other projects and buyers. OEM manufacturers stock raw materials after customer design approvals. Parts and inventory stocked by OEM manufacturers are generally less than ODM, as OEM customers have already specified the requirements. ODM manufacturers stock more parts and materials according to their own design specifications, not to buyer requirements. Section 4.2.6 indicates that ODM involves more costly ‘monetary’ investment, tying manufacturers’ financing. Section 4.2.1 indicates that ODM confronts the issue of uncertain ‘risk’ of ODM design acceptance from the market and buyers. Although some of the interviewees state that OEM has reasons to exist as some manufacturers are ‘risk and money’ conservative in innovation investment and product strategy, they do not agree in a ‘play safe’ mode because it does not strengthen the toy manufacturers’ survival capability and Toy Industry prospects. This capability can be enhanced when toy manufacturers invest more in ODM and innovation (Sun & Wing, 2005). Section 4.2.6
finds that ODM investment (for studying innovative ideas from overseas buyers and markets, setting up R&D departments for product research, attending trade fairs, acquiring test equipment and expertise) can enrich ODM manufacturers’ own innovative ability and creative mentality.

In addition to the influence of customers, all manufacturers state that the rules and compliance in different countries and institutions require significant effort and additional costs to toy manufacturers. As mentioned in Section 4.2.2, these include China government factory certification and product safety testing, and many buyers have their own factory audit and toy safety testing programs. These institutional rules have clear protocols, logic, boundaries and standards, and cannot be compromised through relational means. Manufacturing facilities in Mainland China require government factory certification and operating licences. Also, there are international standards including: (a) the ethical audit by ICTI certification that major customers demand (ICTI, 2014b); (b) the Customs-Trade Partnership Against Terrorism ‘C-TPAT’ (U.S. Department of Homeland Security, 2014) guarding security of supply chain systems for the U.S. market; and (c) other voluntary certification depending on the importing country and the customer’s requirements. Toy manufacturers must comply in order to satisfy major buyers and meet regional legal requirements. Alternatively, they may elect to neglect them and do business with smaller buyers who do not require certification.

Besides factory compliance, the toy itself has different toy safety protocols in the U.S., Europe, Australia and other regions (ICTI, 2014c). Some buyers may have additional requirements, for example, Toys R Us (Toys R Us, 2015). With these toy safety and
manufacturing requirements, toy manufacturers are struggling in an ‘iron cage’ (Zucker, 1987), which requires them to comply or to exit the toy industry. There is no interim position between pass or fail, or resolving institutional compliance through rational means (Chen & Miller, 2010). If the toys are for the retailer Toys R Us, toy manufacturers cannot ship goods unless they comply with the requirements of Toys R Us (Toys R Us, 2014). Peng and Chen (2011) state that toy manufacturers must fulfil these requirements in order to obtain legitimacy in the toy market. The effort in searching, checking, monitoring, contracting and inspecting associated with these tasks is costly. Coase (1960) states that transaction costs exist which are crucial in deciding whether an activity or operation should proceed. These transaction costs impact more on ODM manufacturers who shoulder greater cost and effort for increased technical and design deployments than OEM manufacturers.

### 4.4 Market and Buyers, Status of Hong Kong Design and Innovation

Section 4.2.3 reported Hong Kong innovation development as weak and misaligned, and the quality of design as lacking, compared with foreign companies. Manufacturers A, B and E think Hong Kong designers are deficient in understanding the taste and culture of foreign markets and buyers. Idea generation from Hong Kong is restrictive, even with the aid of the internet and media, and frequently relies on overseas customers and agencies. Different regions have different perceptions of value and taste. What the Chinese like, the West may dislike. Manufacturers A, B, C, E and F believe the acceptance of ODM design in a foreign market is uncertain and very remote. To overcome uncertain market acceptance and save the transaction costs of searching and safeguarding potential product failure, many toy manufacturers choose to adopt the
buyer’s product idea and produce goods according to customer designs on an OEM basis. This risk aversion mindset in toy manufacturers weakens the Hong Kong toy manufacturers’ creativity and leads the Toy Industry to become OEM-reliant, with manufacturers spending less on research, learning and investment. In spite of the available R&D resources in Hong Kong and Mainland China, with design teams, equipment, and the internet providing a view of overseas product trends, these ODM resources do not guarantee product success in the market. Section 4.2.1 mentions that more OEM involvement than ODM involvement impedes design and innovation development which are important survival skills in the Toy Industry, affecting overseas buyers to perceive China’s toy manufacturers’ edge in production efficiency rather than innovative design capability.

Manufacturers D and F find the Chinese and the West have different ways of thinking. If the target market is the U.S., one has to think in the ‘U.S. way’ so that product ideas have a better chance of success. This relates to the design mentality of different regions. As Section 4.2.5 mentions, Hong Kong design development is stuck between Western and Chinese requirements. Which way to go is often a commercial decision depending upon which choice yields better immediate business, not necessarily long-term benefit. Manufacturers C, D and E comment on successful product ideas and brands like Disney (The Walt Disney Company, 2015) and Hello Kitty (Sanrio, 2015) which do not originate in Hong Kong or Mainland China, although most of their toys are manufactured in China. Designers in Hong Kong have difficulty in obtaining accurate and reliable overseas market information. Regional culture, education and technology are some factors affecting toy design. When the market is changing quickly and with uncertainty, designers must keep up with the pace of change to match
the overseas market requirements. Manufacturers A and E comment that it is risky for Hong Kong toy manufacturers to mobilize new product trends in overseas markets.

Section 4.2.4 describes a difficulty toy manufacturers have with investing in costly innovation because of low profit margins and having to confront uncertain ODM design acceptance. Beside monetary concerns, Sections 4.2.2 and 4.2.3 indicate that the quality of Chinese or Hong Kong design ideas and innovation are comparatively weaker than those of the West. The traditional Chinese Confucian culture of resolving problems and getting things done through rational means, unlike the Western approach based on objective technical assessment, is embedded deeply in the Chinese mind (Chen & Miller, 2010; Qin, 2008). When there is a creative idea, it must be transformed into a physical product and fulfil objective requirement of legitimacy: (a) from the market; (b) from buyers; (c) by obtaining industry and toy safety assessment; and (d) by acquiring institutional compliance. The Western positivist culture is clear and explicit, either pass the toy safety test or fail; either purchase a product or not purchase. There is no vague or hybrid form, which is not so with the traditional Chinese approach (Chen & Miller, 2010). A buyer may like a product design but no purchase action means “no purchase at all”. The Chinese approach may deliver unclear messages in people’s mind. Traditional Chinese rational thinking indicates that Chinese design and innovation is very different from the Western approach and does not penetrate Western markets successfully. Western markets (U.S. and Europe) are the major Toy Industry customers, and Chinese design and innovation are weaker than their Western equivalents, as reported in Section 4.2.4. This has influenced many Hong Kong toy manufacturers to involve more OEM than ODM.
Another consideration is the message from Manufacturers A and F relating to working with ‘someone’ or ‘a partner’ for innovative ideas and designs. They both refer to overseas buyers, trading intermediaries and marketers who are specialists in understanding the market more astutely than the Chinese, and with different cultural backgrounds and thinking. OEM manufacturers follow buyers’ product designs from overseas retailers or trading intermediaries to manufacture products that can serve the overseas market better and yield secure business. However, the lack of design capability by OEM manufacturers reflects that competitiveness in the Toy Industry is in trouble. OEM manufacturers adopting customer designs leave very limited room to increase profit, and rely solely on increasing production efficiency. This includes: (a) acquiring, improving and upgrading production machinery and facilities; (b) negotiating better material costs in larger lots; and (c) hiring a sufficiently large workforce for mass production. These OEM deployments are undertaken after the product design has been completed. Section 4.2.5 states that Hong Kong toy manufacturers do not understand overseas markets and this is one reason why ODM and innovative design are not prominent with Hong Kong manufacturers.

Luk, Noori and Leung (2004) state that many overseas buyers do not communicate important project ideas, designs or hi-tech innovations in Mainland China, but undertake these tasks in their home countries or in Hong Kong. They regard Mainland China as a place for handling low-tech and less sophisticated projects, and concentrate on follow-ups and manufacturing. While Hong Kong can still be considered for innovation development, Manufacturers C and E point out that Hong Kong and Mainland China investments to enhance design and innovation are very small compared with overseas countries. This shows that Hong Kong has the conditions for
creative idea generation and innovation development, unfortunately from overseas designers and not from Hong Kong designers. Section 4.2.5 states that foreign designers are stronger than Hong Kong in design acceptance from the market because the customers are foreign.

Overseas buyers and marketers instruct their Hong Kong subsidiaries or trading partners to undertake product design work, eventually commercializing the design into physical production in a Mainland China factory and shipping overseas. This phenomenon reflects a constraint in idea generation where Hong Kong does not have enough quality designers to convince overseas toy marketers and buyers. There are concerns that Hong Kong lacks serious and credible market research to understand foreign markets and product needs (Yam et al., 2011). Toy manufacturers are also lacking tools and channels for this knowledge and this affects their ability to design products to meet market needs. Although some toy manufacturers consult overseas institutions, agencies, sales representatives and customers to seek foreign market evaluations and understand product trends, this consulting does not affect how customers place purchase orders. There is no guarantee that the work of the Hong Kong designers will be successful in overseas markets, but it certainly incurs substantial transaction costs for searching, consulting and risk-taking.

U.S. companies understand toy import requirements and capture emerging product trends from the media, market and local consumer behaviour better than Hong Kong companies because they can access information more efficiently. U.S. toy marketers can design toys that avoid costly import tariffs listed in the U.S. import tariff requirement (USITC, 2014). They can also design toys with the foresight of changing
local U.S. safety requirements and product recall cases, as published in Consumer Product Safety Commission (CPSC) (CPSC, 2014a). The European markets have similar import tariff schedules and compliance (European Commission, 2015a, 2015b). Section 4.2.3 states that toy safety compliance sets the boundaries for toy design. The difference between Hong Kong designers and overseas designers may be geographical in that overseas designers are living and working overseas, knowing the culture, history and market changes, all of which is denied to Hong Kong designers. Section 4.2.5 reports a similar finding.

4.5 Creativity, Technology, Innovation and NPD

Section 4.2.3 states that innovation in the market is not consistent. Whether products are based on radical innovation or “me too” modification, as long as markets exist and the toys are safety compliant, toy manufacturers keep producing them. The demand for new and innovative toys is clear, especially as there are many “me too” products distributed in the market. In Section 4.2.4, the cost of developing and implementing innovation is found to be substantial, and toy manufacturers operate low profit businesses with rising costs and lack money to invest. Manufacturers C, E and F share their amazement at people using smart phones to program a toy to perform certain functions (games) in the U.S. market. The device is able to download new versions of firmware allowing the device to last longer in the market. Manufacturer C indicates that Chinese creative idea inspiration and quality of innovation are weaker than in the West.

Section 4.2.2 states that the West has more advanced technology and innovation than
China. Manufacturer F finds that the Western product development system is more efficient than that of China. A high-speed hi-tech environment narrows the design and product development lead time, leaving ODM manufacturers with the dilemma of speed to the market versus quality of product design (Rodriguez-Pinto, Carbonell & Rodriguez-Escudero, 2011). Section 4.2.6 mentions that sources of innovation can be internal (company’s own designers) or external (customers, agents or institutions). Manufacturer E finds that most assistance in innovative design and technology is from the private sector, not from government. Also, government effort in protecting intellectual property is inadequate. Section 4.2.2 reports the relatively low respect for intellectual property protection in China, and Section 4.2.6 cites the long registration processing time to file patents for copyright protection, in contrast to the short product life of toys. Manufacturer D describes innovation when applied correctly can yield fruitful business. Knowing one’s targeted market is important for Hong Kong toy manufacturers to formulate strategic plans. For product strategy, although hi-tech toys (on-line, smart phone or tablet game segments) are phenomenal worldwide, manufacturer A thinks traditional toys for infants can still have a market, because small children have difficulty with hi-tech toys. The demographic factor is a very promising innovation opportunity (Drucker, 2002) that toy manufacturers can use in the NPD.

Toy safety regulations, segmenting compliance into different age ranges, has resulted in age ranges for toy designs and functions. Manufacturers must comply with these rules or they will produce unwanted products that are illegal in the market. Manufacturer E comments that different ODM manufacturers offer buyers very similar design ideas. As discussed in Section 4.2.3, different stakeholders have inconsistent
definitions of innovation concerning good products from the market, whether “me too” products or the modification of existing products. This perception and design approach may lead to illegal counterfeit products. Buyers can freely choose the manufacturer that satisfies their price and specific requirements when manufacturers are similar in nature. This delivers a clear message to the Toy Industry stakeholders that the survival of toy manufacturers should be based on innovative differentiation and excelling others instead of homogenous products. These stakeholders have been discussed in Section 4.2.4. This defines the extent of innovation for the Toy Industry, whether: (a) ‘conservative mode’ of “me too” products; (b) slight modification to existing product to play safe; or (c) ‘aggressive mode’ breakthrough innovation. Toy Industry stakeholders have some shared understanding of differentiation associated with innovation quality. This also encompasses innovation culture and leadership supported by the “right” people, as described in Section 4.2.5, and resource deployments with hard, focused and purposeful work (Drucker, 2002; Sun et al., 2012).

4.6 Strategic Environment

4.6.1 The Competitiveness of the Hong Kong Toy Industry

Section 4.2.2 demonstrates that competitiveness in the Hong Kong Toy Industry is seriously affected by rising costs. Manufacturer A says there are always cheaper offers available in the market. Section 4.2.1 advises that ODM, because of ODM’s design functions, can cement customer reliance more than OEM, and can provide OBM opportunities. Manufacturer B emphasizes that OEM competing solely on price is a “dead end”. Section 4.2.2 states that cost increases affect competitiveness in the Toy
Industry. The factors influencing Toy Industry competitiveness can be external or internal. From the interview, Manufacturers A and E state that the Chinese culture of hard work, efficient responses, fighting to get things done, overcoming problems during product development, production, and shipping goods on time, is outstanding. Manufacturer B further states that this achievement is attributed to the supply chain system and support in GPRD. This is also a key reason Manufacturers A and B believe the GPRD Toy Industry is still competitive among other Asian regions.

The renowned ‘World Factory’, with Mainland China manufacturing supported by Hong Kong investment and management, is the most powerful and efficient production hub in the world. From geographical and efficiency perspectives, Hong Kong is a small city with the convenience of manufacturers, overseas buying offices, laboratories and other institutions being close to each other. They can be reached efficiently the same day, or in just a few hours, effectively removing the feeling of remoteness. Overseas buyers visiting Hong Kong are able to access several different toy suppliers in a small region, or even within one commercial building. Toy manufacturers can approach buyers more easily, as buyers often plan buying trips to Hong Kong to see different vendors or, through their Hong Kong regional buying offices, offer new products to buyers. Through face-to-face discussion and negotiation, both buyers and sellers are facilitated to do business more effectively and efficiently. For product development, Manufacturer F shares the frustrating experience of foreign companies which are slow to respond, with key staff on long holidays or out of the office, causing delays. In Hong Kong, manufacturers can bring toy concepts or samples to buying offices for approval or to local laboratories for technical assistance and testing to resolve problems. This saves transaction costs in searching and
coordinating remote overseas buyers and institutions, as well as courier costs and time for sample dispatch back and forth or waiting for emails or faxes, between toy manufacturers and overseas buyers.

4.6.2 Design Ideas and Buyers’ Protectionism

Manufacturers B, C and E say that the Chinese have difficulty in inspiring creative ideas of Western quality, and Hong Kong designers do not understand Western ways. Another reason is the strong customer power exercised over ODM manufacturers, from product design through to the retail stage. Buyers, especially the big importers and retailers, are able to influence the success or failure of a product in the market through their distribution network, retail strategy, marketing campaign and promotion (Chen, 2010; Zhao et al., 2008). As Sections 4.2.4 and 4.2.6 report, the growing number of customer brands has signalled to toy manufacturers the need to enhance their ability and quality of design to regain better innovation leadership and pursue their own brands. Section 4.2.6 states that, when the source of innovative design ideas is external, potential opportunism initiates safeguarding. Buyers make use of their private brands (OEM and ODM modes) to establish brand loyalty and to maximize their own profits, opportunistically undermining manufacturers’ brand prospects (OBM) and weakening the toy manufacturers’ potential for direct marketing to consumers (Chen, 2010). As found from Sections 4.2.2 and 4.2.5, buyers decide whether manufacturers’ designs are acceptable or not. In addition, Manufacturer F states that buyers’ protectionism is restricting manufacturers’ access to proprietary knowledge. Buyers also hold the discretion to modify ODM designs and the power of marketing that invariably controls the destiny of a product’s success or failure (Dallas,
Manufacturer F feels Hong Kong ODM toy manufacturers are weak in business negotiations with overseas customers. Sections 4.2.2 and 4.2.3 disclose buyers purposefully influencing toy manufacturers to adopt more operational than core level activities to prevent opportunistic competition or theft of concepts. Even when manufacturers are involved in a part of the design, it is more in operational follow-up. The Chinese toy manufacturers must then survive on operational costing, engineering and manufacturing, and lack the opportunity to participate in customer marketing or the crucial conceptual level of NPD. It is a matter of buyers’ protectionism against potential toy manufacturers’ opportunism. Or, from another view, ODM manufacturers are apprehensive that their patent or proprietary innovation will be opportunistically transferred to customers’ private brand loyalty. ODM differs from OEM in that OEM listens to and follows buyers’ instructions to produce, while ODM manufacturing involves negotiation with buyers (not manufacturers purely listening and following buyers’ requirements). ODM manufacturers design products that have leverage power over buyers. With customers’ private brands against manufacturers’ brands, where opportunistic behaviour exists between ODM manufacturers and buyers, proprietary designs and construction mechanisms must be protected. ODM manufacturers safeguard their inventions and patented designs, and do not wish them to become part of a buyer’s assets tied to a customer’s private brand. Buyers also do not want control to be given easily to ODM manufacturers, who may charge a higher price for their intellectual property, cutting the buyer’s profitability (Chen, 2010; Qu & Brocklehurst, 2003). Sections 4.2.1 and 4.2.5 report the uncertain design acceptance and the high failure rate as perceived by Manufacturers A and D. In any event, an endogenous
ODM design invariably requires acceptance from exogenous parties, e.g. buyers, institutions or the market. This exogenous factor, described by Priem and Butler (2001), explains why it is difficult for an ODM design to be a stronger resource than a customer's design. The buyers’ strong bargaining power mentioned in Section 4.2.4 facilitates customers’ OEM production to be easier and more dominant than ODM, as ODM design capability is not enough of an advantage to warrant a purchase order.

4.6.3 “Me too” products, Business Strategy, Transaction Costs and OEM-reliance

Section 4.2.2 discusses “me too” products in the market. Once the market has a successful product, many toy suppliers follow the lead and supply or even flood the market with the same or similar products. Section 4.2.3 finds that toy manufacturers producing these “me too” products are inadequate in creativity and innovation, which is very probably due to their conservative mindset in avoiding risk-taking of costly innovation development and the fact that product life is short (Luk, Noori & Leung, 2004; Sun et al., 2012; Sun & Wing, 2005; Yam et al., 2011). The ability of toy manufacturers to exploit external knowledge and incorporate it into their own design capability allows them to manufacture products satisfying customer and institutional requirements. Manufacturer C states that this conservative norm does not encourage toy manufacturers to cultivate a mentality to pursue serious design, in contrast with Western culture which permits failure. Another factor is that toy manufacturers are swamped by cost reduction and cost control activities, as explained in Section 4.2.5, and little effort remains to consider serious innovation, causing the ‘extent of innovation’ to be limited to product modification or repackaging of existing products.
(Lau, Tang & Yam, 2010). This ‘low cost’ strategy often requires financial trade-offs between initial investments in equipment and deployment (Porter, 1998). Apart from the cost of toy production, transaction costs exist in ex-ante investment alignment and ex-post governance, where different forms of OEM and ODM contracting take place (Narayanan & Fahey, 2005; Williamson, 2010).

Toy manufacturers must evaluate if an investment can justify the desired return (Coase, 1992, 1998; Hart & Moore, 2007). More specifically, it is whether toy manufacturers:

(a) work with a business partner, e.g. buyers, retailers or trading intermediaries (OEM);

(b) deploy designs in-house (ODM); or

(c) market their own branded products (OBM).

OEM manufacturers leave the design, B2C marketing and product acceptance uncertainty in the market to buyers. OEM toy manufacturers do not produce unwanted products that waste time, money and resources. They produce products only after buyers have supplied product designs and have placed purchase orders. As Manufacturers C and F comment, ODM must invest in design equipment and stock components that may or may not be shared with different customers. Manufacturer C describes OEM investment alignment as ‘different customer, different project’, unlike the ODM risk of excessive investment and inventory. As a result, OEM operations have comparatively lower risks and lower transaction costs than ODM. From a TCE view, the lowest transaction cost, including both in ex-ante investment alignment and ex-post governance, determines the option to pursue (Coase, 1992; Williamson, 1985).

4.6.4 Need of NPD, Fact of Bilateral Dependence and Opportunism

Manufacturers A, B, C and E express the need for improving NPD lead times. OEM
manufacturers adopt a customer’s design and do not have to consider design lead times, while ODM manufacturers must consider them. Fast changing technology combined with short product life causes new innovative ideas to become obsolete very quickly. The ODM design process involves searching, checking, negotiating, approving and monitoring between manufacturers and buyers, which, if extended, pose the threat of a late launch into the market or missing the trading season for the product. In some circumstances, manufacturers must resort to overtime for workers to catch up (ICTI, 2012). These transaction costs can be very high, affecting ODM toy manufacturers by not yielding the expected ROI. The prospect of ODM is reduced by buyers who hold major influencing factors and controls. Section 4.2.3 describes buyers’ strong power to select toy manufacturers at their discretion. Buyers are able to check a product’s perceived value, market compatibility, substitute products and even factory cost comparisons with other manufacturers, and this erodes precious product development lead times.

The concern about keen manufacturing competition, as described by Manufacturer A, is that there are always cheaper offers in the market. Section 4.2.1 concludes that competing purely on lowest price is a ‘dead end’. Focusing on OEM and lowest price competition undermines the importance of applying resources to innovation and ODM development which can improve the Toy Industry’s prospects. ODM manufacturers with design capability can provide greater “added value” service to customers, enhancing ODM competitiveness over OEM. However as Sections 4.2.2 and 4.2.4 report, some toy manufacturers perceive this goal to be long-term and too remote, and lack confidence because change and uncertainty affect the original or anticipated ROI. OEM has the advantage of generally shorter lead-times and lower investment costs.
than ODM, since OEM involves no design functions because these are performed by buyers. ODM has the worry of buyers’ opportunistic behaviour, so ODM manufacturers protect their R&D and intellectual property. Buyers may also seek other toy manufacturers, taking too much time to decide with whom to undertake business, affecting ODM manufacturers’ “first come first serve” approach that may cause them to miss the opportunity to negotiate with other buyers. Contracting exists between buyers and manufacturers under bilateral, reciprocal and mutual dependent conditions subject to a product’s uniqueness (Nooteboom, 1993), and there is information sharing in a resource dependent situation (Shou et al., 2013). When such bilateral dependency is satisfactory and promising, it facilitates partnerships and ODM investment. Otherwise the adverse effect discourages toy manufacturers’ investment in ODM.

4.6.5 Strategic View of Transaction Costs, Cost Stretching and Option of Investment

The toy business is a “tough price business”. The toughness is not just that buyers rarely accept price increases, as reported in Section 4.2.4, in spite of manufacturing cost increases for a variety of reasons. Section 4.2.2 advises that buyers are forever bargaining for lower prices. There are already costs for factory audits and toy safety tests at the manufacturers’ expense. Additionally, buyers have stretched the cost responsibility towards the toy manufacturers’ side, to include information searching, artwork development, prototyping, mould cost sharing, transaction platform program, defective allowance, volume rebates, advertising or promotion contributions, and long payment terms. Examples can be seen in Toys R Us (Toys R Us, 2014). For the more costly investments, e.g. tooling costs in OEM project, Manufacturer C experienced
strong resistance from buyers who refused to make any contribution. Other costs, as mentioned in Sections 2.6 and 2.9 (e.g. laboratory testing, factory audit, unexpected cost incurred in VAT, logistics surcharges), can occur even after purchase contracts are signed. These costs are on a continuum stretching between buyers and manufacturers (see Figure 4-16).

The extent of the cost burden to suppliers or buyers depends on the bargaining strength and power of buyers and suppliers as well as the institutional requirements. Section 4.2.2 states that, with buyers’ strong bargaining powers, the leverage of toy manufacturers over buyers is a contracting weakness (Dallas, 2014). Suppliers absorb more of the cost burden than buyers when buyers have superior power on brand loyalty, licensing, marketing strength, large orders, more substitutes, multiple suppliers available in the market and institutional requirements. Buyers absorb more of the cost burden than suppliers when suppliers have proprietary designs or patents, technology advantages, efficiency benefits, lower costs, specificity in manufacturing and strong market demand for the products. The price elasticity of demand mentioned in Section 2.6 (Figure 2-4) affects the portion of cost absorption between buyer and sellers.
Additionally, the cost burden is sometimes difficult to define clearly at the beginning of business negotiations, before signing a contract. Buyers may react conservatively in the beginning due to an uncertain environment and economy, then change and split the order into several smaller shipments incurring additional costs to manufacturers (ICTI, 2012). This also exerts pressure on manufacturers for shorter product development lead times to reduce uncertain exposure, and there exists a dilemma of speed to the market versus quality performance of the product. This is supported by Manufacturer C who states that toy manufacturers prefer shorter lead time projects to avoid the risk of long project engagement uncertainty. In this way, financial liquidity can be improved due to faster payback. Otherwise, with growing uncertainty, additional costs are incurred which are not borne by buyers but must be paid by someone else in the supply chain (i.e. toy manufacturers). Williamson (2010) states that it is difficult to have completely correct contracts that define everything clearly upfront, and incomplete contracts incur transaction costs to toy manufacturers. The transaction costs play an important role in toy manufacturers’ strategic decision making of whether to invest in ODM or OEM.

4.7 Influences by Government and Institutions

4.7.1 Hong Kong Government Involvement in Innovation and ODM Support

All manufacturers state that the Hong Kong government’s policy to foster innovation development in the Toy Industry is inadequate. This is causing an awkward situation to the cultivation of innovation and creativity which are the key components to a quality
ODM profession. Section 4.2.2 reveals that the Hong Kong government policy and institutional support to the Toy Industry are misaligned. Manufacturers A and C quote that Taiwan, South Korea and Singapore governments provide extended and more active support and resource subsidization to targeted industries, and cite the U.S. Silicon Valley as an example of serious institutional investment of government funding, resources and expertise for a specific industry. Manufacturer C believes this success is attributed to U.S. culture that encourages risk-taking and accepts failure. Drucker (2002, p. 6) states that “unexpected success and failures are a productive source of innovation”. These important elements of innovation are lacking in Hong Kong and Mainland China, and government effort to educate and foster such a culture is insufficient.

Manufacturers C and D are disenchanted with the Hong Kong government for the lack of promotion of the Toy Industry, despite the fact that Hong Kong is the world leader in toy exports. In addition, Hong Kong is closely related to the ‘World Factory’ policy with Mainland China, in which Hong Kong has invested heavily. However, the Hong Kong government has placed great emphasis on becoming an international financial centre. This can be seen from the promotion of share trading in Hong Kong and Shanghai (Hong Kong Exchanges and Clearing Limited, 2014). The Hong Kong government not only lacks a supportive policy for the Toy Industry, but some of its policies are discouraging Toy Industry development.

Manufacturer D comments that Hong Kong tax laws do not allow Hong Kong toy manufacturers to claim depreciation for tooling, equipment and machines acquired in Hong Kong but located in Mainland China production areas to contribute to Hong
Kong’s export sales. This territorial taxation principle affects Hong Kong’s competitiveness (The Taxation Institute of Hong Kong, 2014), deterring innovation development by a lack of incentive to invest. In addition, Sections 4.2.2, 4.2.5 and 4.2.6 criticize the Hong Kong education system because support of innovation and design in the Toy Industry is inadequate and lacks creativity. Manufacturer B states that, although there are many saleable and innovative toy products designed by people without academic qualifications, the cultivation of innovation and creativity in the Toy Industry must not be neglected, and should be nation-wide with adequate funding and resources. This deployment, if neglected, leads to difficulties in nourishing prospects for innovation and ODM development. Section 4.2.6 advises that resources for such creative training and education are found rarely in local universities and institutes, unlike overseas universities which offer specialist degrees in toys design (see examples in U.K., website: http://www.uclan.ac.uk/courses/ma_pgdip_pgcert_toy_design.php, and in the U.S., website: http://catalog.fitnyc.edu/undergraduate/majors/baccalaureatedegreeprograms/toydesignmajor/).

Manufactures D and F feel that Hong Kong is comparatively weak in mobilizing such specialist education or training platforms, in spite of its status as the world leader of toy exports, a city where most worldwide toy buyers place purchase orders, and which has the support of the ‘World Factory’ policy in Mainland China (Zhang, Huang & Liu, 2012; Dallas, 2014). Section 4.2.2 reveals a gap in the Hong Kong government’s investment in education and promotion of innovation. Manufacturer C criticizes such a gap as superficial and lacking creativity and support. Manufacturer D comments that it shows a lack of incentive and adequate education support. Wang and Tseng (2011) state that developing education for product design should cover good design,
incorporating both technical and qualitative elements into customer attributes, product functions and design parameters. Apart from this education gap, current Hong Kong education has diversified into a variety of service industries. Manufacturer A comments that industrial education and training in Hong Kong is insufficient. When it exists, it is more likely to be directed towards industrial manufacturing, not industrial design. As a result, manufacturers generate technical talent by training fresh graduates from Mainland China universities from scratch, further reducing Toy Industry participation in Hong Kong. The scarce supply of industrial toy designers in Hong Kong is an obstacle to growing design quality and technical expertise.

Manufacturer F states that the Hong Kong government’s efforts are disconnected from the requirements of the Toy Industry, e.g. setting up laboratories and institutions to help the manufacturing industry facilitate international compliance and develop innovation. Most Toy Industry stakeholders are not benefited. Manufacturer C emphasizes the need for investment in testing equipment for Toy Industry innovation development. Manufacturer D also feels that government support to assist the Toy Industry in resolving the testing issue is poor. Customers’ requirements for toy safety compliance are strict - some have different protocols beyond the existing statutory standards and must be tested in customer appointed laboratories and billed to toy manufacturers, e.g. Toys R Us (Toys R Us, 2015). It is difficult for toy manufacturers to compare and cross-check these different tests with other laboratories. Manufacturer D is concerned by the lack of government testing support, but Manufacturers B and E are concerned about testing costs because toy manufacturers find compulsory custom testing programs organized between laboratories and customers lack transparency, unlike governmental laboratories with public (non-private) monitored accountability.
This results in repeated tests on the same toy product by different customers’ laboratories, which is a significant cost burden to toy manufacturers (HKTDC, 2009). Testing costs are more expensive when toy products become more sophisticated in design and technology. More innovative and sophisticated toy products are attractive, but the compliance is proportionally more stringent and costly. Toy manufacturers face a dilemma with product specificity because some toy manufacturers do not want to invest in risky and uncertain projects.

Sections 4.2.3 and 4.2.5 advise that some manufacturers feel the need to innovate and develop something new and different in the market to attract sales. The role of government laboratories to alleviate the burden of excessive customer testing requirements and to provide toy manufacturers with a ‘one stop’ credible testing mechanism may not be accepted in some markets. In the U.S., which is the major toy market, the CPSC has conditional terms to accept government laboratories performing tests in order to obtain objective results without government interference (CPSC, 2014b). In Hong Kong, most toy companies test their products in non-government third party laboratories that can be found on the CPSC website. These non-government laboratories react more aggressively than Hong Kong government laboratories. They have established larger facilities in Mainland China to lower costs and to be close to China’s factories. However the Hong Kong government is comparatively silent in helping toy manufacturers with its laboratory testing service, monitoring of testing prices and promoting international acceptance of its standardized testing protocols.

When evaluating other Hong Kong government establishments (e.g. the Science and Technology Park and the Information and Technology Commission), Manufacturer F comments that most toy manufacturers rarely access and use these services. While
some small scale activities may be organized by these institutions, their validity and meaningful contribution to the Toy Industry is in doubt. Institutional reactions to toy market needs are very slow. They are insufficient to convince the toy manufacturers and buyers (both in Hong Kong and overseas) to believe their vision of product trends as compared with overseas marketers and buyers.

### 4.7.2 Mainland China Government Involvement

Manufacturer C comments that China government support to Toy Industry innovation is superficial and that much attention is directed to larger scale hi-tech industries and the booming property market. Section 4.2.2 reveals that the China policy prefers more immediate results over long-term innovation. Manufacturers C, D and F are disturbed by repeated auditing of their China factories by different surveyors and industry standards demanded by ICTI and overseas customers. Factory audits lack a consistent and standard approach which is acceptable to all worldwide customers, frustrating factory owners with compliance and auditing costs. Even when factories receive the ICTI seal, many customers still conduct their own audits (ICTI, 2012). China government statutory factory certification is not convincing enough for international recognition and for customers to waive their audit requirement. Manufacturer E mentions that Hong Kong and China innovation is not sufficient to handle large projects. Even if the needed innovation skills and quality are available, Chinese toy manufacturers cannot handle the projects unless they have satisfied international and customers’ requirements. As a result, insufficient government support to enforce factory compliance hinders the growth of technology and innovation. With more hi-tech equipment and machines, or when equipment requires special certification, the
Manufacturer A states that, although Mainland China policies have good intentions, the associated effort and cost burden affect Toy Industry efficiency and profitability. Some China policies attract investment, but the policies also discourage investment propensity and incur extra costs. As mentioned in Section 4.2.2, apart from insufficient China government support to obtain international factory compliance recognition, China government economic policy, e.g. inflation control to stabilize price increases, is insufficient. RMB internationalization, intended to facilitate international trading convenience, requires manufacturers to pay more to acquire foreign technologies and equipment, which in turn requires overseas buyers to pay more for the purchase. RMB appreciation erodes toy manufacturers’ market competitiveness. China’s taxation policy, e.g. export VAT rebate reduction, has impacted on all factories to shoulder increased cost differences. Other VAT, whether on the logistic side or laboratory testing and consulting services, adds costs to the buyers and results in buyers’ demand for lower prices from manufacturers to accommodate these extra costs. The toy manufacturers are leveraging with buyers on cost-stretching (Dallas, 2014).

Section 4.2.2 mentions that toy manufacturers are puzzled by the Mainland China minimum wage and labour contract laws, as they have transferred more labour welfare, insurance and provident fund responsibilities from government to the private sector. In addition to government, the growing SOE privatization is similarly passing labour welfare responsibility to individual firms. Sections 4.2.5 and 4.2.6 report the shortage and weakness of Chinese designers and, with the Toy Industry having more involvement in OEM than ODM, manufacturers prefer to prioritize the scarce
workforce into production before design. From the ICTI (2012) report, recruiting and retaining a workforce in Mainland China is one of the top challenges to toy manufacturers. Sections 4.2.2 and 4.2.4 mention that labour shortages and population growth in Mainland China are due to Mainland China’s one-child policy. Even though Mainland China grants more than one child per family in special circumstances (The Economist, 2012), the demographic situation is difficult to improve in the short term.

China’s diversified education policy is well intentioned but raises the problems of manufacturing workforce shortages and social problems. Manufacturer D observes a growing social norm of a younger generation in Mainland China seeking short-term careers with fewer participants electing to enter the manufacturing industry. They are earning and spending money quickly instead of sending it back home, preferring to support their own small businesses rather than the manufacturing industry. Mainland China’s strong positioning as the ‘World Factory’ has caused toy manufacturers to prioritize more immediate goals of efficiency and productivity, with innovation becoming a second or even later priority. This ‘World Factory’ is attributed to China’s productivity growth more than capital investment (Zhu, 2012), and superior productivity is mostly due to the massive Mainland China workforce (Mok et al., 2007). This massive workforce has become a heavy burden to manufacturers because they incur compensation responsibilities as a result of China’s labour policy (Wang et al., 2009), causing some manufacturers to continue operating facilities that are financially unsustainable. The poor financial condition of some manufacturers discourages their investment in innovation which is costly. In some situations, as manufacturer B states, it is difficult for factories to exit the industry, as manufacturers lack funds for severance pay or compensation to workers. This unhealthy situation
may evolve into larger debt problems expanding to other stakeholders along the supply chain. Consequently, more stakeholders will be hurt.

Section 4.2.2 mentions manufacturers’ concerns of Mainland China’s law enforcement in intellectual property protection, contract execution and safeguarding interests, as well as the difficulty in legal recourse against companies infringing products. This apprehension can also be seen from U.S. President Obama stating openly, to expect China to be an innovative economy that respects and protects intellectual property rights (Reuter, 2014). Although China’s government is launching a nation-wide anti-corruption campaign (Wang et al., 2009), the concern of the inadequacy of rules and integrity compliance in Mainland China still exists, unlike Hong Kong where there is a dependable legal system (Krueger, 2008; SCMP, 2013). Even when ODM manufacturers relocate their confidential project designs from Mainland China to offices in Hong Kong, the ODM plants in Mainland China are still operating with the threats of copying and product spying. Luk, Noori and Leung (2004) have cautioned careful recruitment of toy engineers in Southern China for R&D security reasons. Considerable effort and cost is directed to Toy Industry governance to safeguard stakeholders’ investments, intellectual property, industrial compliance and staff integrity.

Furthermore, government institutional rules and customer requirements appear to be disturbing to the toy manufacturers. To some extent, they are considered a nuisance. However, if such rules or requirements do not exist, the market will be flooded with unsafe and poor quality toy products manufactured in sub-standard factories and affecting Toy Industry prospects. Therefore, it depends on whether or not these
institutional requirements are facilitating the Toy Industry. The external influences (externalities) on toy manufacturers are not necessarily hurting the toy manufacturers, but are acting as driving forces for them to work harder, to design better product and to enhance their own innovative capability.

4.7.3 Transaction Costs, Influence from Government and Institutions

As Sections 4.7.1 and 4.7.2 mention, the political and legal issues in Hong Kong and Mainland China invariably affect toy manufacturers to different extents, cause economic inefficiency, require additional effort in the maladaptation process and incur transaction costs.

Coase (1960) refutes the concept of zero transaction costs because they do not exist in the real world and, in the same vain, zero government involvement in the market is refuted since government may be also an institution and a stakeholder. All interviewed manufacturers admit the existence of transaction costs. Toy Industry stakeholders do not regard government or institutional influence as zero, and must include this in their strategic considerations together with the corresponding transaction costs. Besides admitting government’s presence and influence, misalignment is found between government and toy manufacturers. Toy manufacturers lack: (a) the finance to deploy innovation and ODM activities; (b) a sound system of factory certification and product safety testing with international recognition; (c) an economic system of maintaining price stability due to inflation and economy growth; (d) incentives or taxation subsidies; (e) participation in the manufacturing industry due to side effect of diversified education; (f) workforce and talents supply; and (g) a solution to rising
wages including social compensation. Sun et al. (2012) state that, although the Hong Kong government has SME funding schemes for innovation, SMEs do not want to take the risk of innovation failure. Instead, SMEs prefer investing in projects with better profit security. The need of Hong Kong government support to the Toy Industry is clear, because it is currently inadequate and misaligned, and toy manufacturers have difficulties in receiving the benefits. Coase (1960) states that government participation to resolve economic problems may not be as effective as settling privately in some circumstances. However government can be a ‘super firm’ that can handle problem-solving very efficiently if the government can view things like a broker.

4.8 Profitability, Economics and Innovation

4.8.1 Cost Stretching Leverage, Supply and Demand, Innovation

Section 4.2.2 mentions toy manufacturers’ hardships of rising operating costs. Section 4.6.5 (Figure 4-16) discusses the Cost Stretching Continuum, where buyers and manufacturers are leveraging the cost absorption portion. Manufacturer C advises that buyers are reluctant to pay any extra cost associated with a project. Should such an extra cost occur, buyers either demand manufacturers lower the product price to maintain the same landed cost and retail price, or compel manufacturers to absorb the cost themselves due to a contracting weakness (Dallas, 2014). Extra cost absorption and thin profit margins cause toy manufacturers with tight cashflow either to obtain more funds from the banks or to cut costs, discouraging investment in innovation. Manufacturer C states that manufacturers avoid undertaking long-term projects because of risk and uncertainty. This apprehension is understandable, for market taste,
trends and technology can change product demand and product life. Smart phones, electronic on-line games and hi-tech creative toys are already challenging the existing toy market. Toy manufacturers want liquidity and faster payback from investments. The uncertainties of the market, as well as the changing technology and market response, affect product development governance (Rodriguez-Pinto, Carbonell & Rodriguez-Escudero, 2011). As Section 4.2.6 reports, ODM manufacturing imposes stronger impacts than OEM in staffing, creative idea acquisition or generation, technical design setup, tools, equipment, licenses, computer software for design and engineering, associated overheads and testing costs.

Section 4.2.1 states that the ODM investment payback period is longer than OEM, affecting corporate financial statements and liquidity. Manufacturer C states that seeking finance from banks for innovation is difficult unless a toy manufacturer possesses a reputable licence or patented design. Manufacturer E comments that banks prefer lending to investments with better security (e.g. the property market) rather than risky technology or innovation. Both ODM and OEM toy manufacturers have a difficult time in obtaining finance, and buyers keep bargaining for lower prices in spite of factory cost increases. Manufacturer B describes toy manufacturers as having not much room to turn, with pressure to reduce selling prices to buyers eroding profitability, which is a vicious cycle, eventually ‘a dead end’. ODM toy manufacturers bear more costs in design and R&D than OEM. However, it does not mean that they give up.

Manufacturer F states that, when risk and uncertainty occur, a manufacturer should increase profitability to improve corporate equity. However, increasing the selling
prices to buyers is not easy. A toy generally perceived at $9.99 retail is difficult to attract sales at a selling price higher than the perceived value, unless there is strong inelastic demand from the market. The argument is: under what conditions a buyer is willing to pay more for a toy product in the existence of other competitive and substitution products? When applying a similar argument to innovation and the ODM toy business, how does one justify the added value of ODM design and the quality of an innovative design to convince buyers to buy one’s product instead of another?

The leverage in ‘cost stretching’ depends not just on which party incurs it first (manufacturer or seller), but also which has more bargaining power. This is what the Porter FFF (Porter, 1998) and the cost stretching continuum address. To toy manufacturers, market demand for a product determines who bears the cost burden and to what extent. Nelson (2013) describes such interaction between the supplier (manufacturer) and demander (buyer) as the ‘market order’ in which its strength determines the price and quantity of the product in the market. The strength of demand is associated with the perceived value of a product in terms of price, loyalty, brand, satisfaction, quality, service, innovative design and functions. Manufacturer D mentions that successful brands (e.g. Disney, Hello Kitty) and Manufacturers C and F cite the successful technology of smart phones, as having common characteristics of innovative ideas and strong market demand for their products. Section 2.6 (Figure 2-4) mentions the cost increase burden to suppliers or customers depending on price elasticity of demand, and Lipsey and Courant (1996) discuss the demand curve becoming more elastic in the long term. Both mean that a product with inelastic demand is more favourable to toy manufacturers to defend against cost increase impact (e.g. taxation) than one with elastic product demand. Nelson (2013) mentions
there are costs in negotiation and bargaining in the supply and demand of a product. The effort to reduce such cost increases, if institutionally affiliated, can be through negotiation or lobbying with government, institutions or pressure groups for a more benign approach to the manufacturing industry. However, the transaction costs involved can be considerable.

For cost economization, the Porter (1998) generic strategy states that ‘overall cost leadership’ is adopted to pursue the lowest cost, but Manufacturer B feels differently in that this is not necessarily the best approach and may lead to a dead end. Section 4.2.1 states that it is advantageous to toy manufacturers to adopt added value strategies with innovative creativity, which may enable the inelastic product demand to continue. Differentiation, as another Porter (1998) generic strategy in which creative innovation, brand loyalty and design quality can be useful for ODM toy manufacturers, is a better defence strategy than ‘lowest cost leadership’ for OEM manufacturers to rely upon. Manufacturers A, D and F express their views of “me too” products that lack innovation and are not favourable to the Toy Industry prospect. While viewing innovation as an ideal solution to sustain competitiveness in the Toy Industry, innovation should be a non-stop process, otherwise it will fall into the elastic demand curve problem area. Nelson (2013) states that innovation can alleviate cost increase pressures from external environments (PESTL) and internal environments (strategic, companies themselves). In this way, innovation helps toy manufacturers to sustain the Toy Industry and to enhance market demand. Lau, Tang and Yam (2010) assert that innovation is critical to the survival of firms.
4.8.2 **Response from Toy Manufacturers**

Sharif and Huang (2012, p.74) state that “innovative activities are costly and risky”. Manufacturer A mentions the costs in control and governance of operations, and Manufacturer D emphasises tooling, equipment, machinery, testing, expertise and staffing as costly in terms of investment and deployment. The transaction costs of innovation and ODM, internal or outsourced with a partner, can be substantial. ODM requires: (a) the establishment of R&D departments furnished with appropriate tools and equipment; (b) conducting product research; (c) recruiting the in-house design talents or outsourcing agencies; (d) attending trade fairs to explore ideas; and (e) sending staff abroad to learn new knowledge and foreign market needs. All of these activities are costly investments, containing uncertainty and risk, which can only be undertaken by toy companies with sufficient financial strength and good governance systems to monitor resources (Sharif & Huang, 2012). Developing innovation is commonly held as a crucial element to enhance competitiveness in the Toy Industry. However, the Toy Industry environment is difficult, with general cost increases. In spite of this, buyers demand lower prices by any means. Toy manufacturers lack the funds for costly innovation and ODM investments. Shortage of funds means innovation investment is restrained, weakening a toy manufacturer’s creative capability and a sustainable competitive edge, which consequently affects the manufacturer’s survival.

Even when the financial side of innovation is overcome and affordable, Drucker (2002) states that it is still not enough, and that ‘innovation’ is not just applicable to a physical product, but is also the heart of entrepreneurship with emphasis on new opportunity
sources and leadership. Developing innovation as a corporate strategy involves the company owners, shareholders and executives, and organization-wide staff participation. Manufacturers C and F emphasize a team approach (good designers, marketers and all associated personnel). However, Manufacturer E comments that the supply of such personnel is scarce. In parallel of the implementation, Manufacturer C mentions the need for safeguarding due to the agency problem. In order to motivate executives and staff to follow a corporate strategy, toy companies must pay attention to the opportunistic behaviour of executives who pursue risky products too aggressively in an uncertain environment, or behave very conservatively with “me too” products lacking serious innovation (Medema, 2010). It is necessary to craft a suitable governance system in respect to each different contractual condition with appropriate incentive alignments (Williamson, 2002).

4.8.3 Business Mindset of Toy Manufacturers - Conservative versus Ambitious

Sections 4.2.1 and 4.2.2 advise that there are more toy manufacturers involving OEM than ODM for reasons of: (a) OEM having faster cashflow payback than ODM; (b) OEM having lower risk and uncertainty exposure than ODM as it is difficult to predict market acceptance; (c) OEM having a shorter product development cycle than ODM as there is no design stage in OEM; and (d) the danger of ODM design failure due to uncertain market or buyer acceptance. When looking further, the ODM design process includes: (a) in-house idea generation; (b) concept and design; (c) design exchange; and (d) consent from buyers. OEM does not worry about these ideas, concepts, designs and consent, market research, cost of marketing and advertising,
because buyers absorb these costs. As manufacturer D states, buyers supplying product designs to OEM manufacturers represent a serious intention to do business. Therefore, OEM has a higher success rate of purchase orders than ODM. With regard to uncertainty, from Sections 4.2.1 and 4.2.2, toy manufacturers lack confidence in: (a) the economy (China, Hong Kong and worldwide); (b) market acceptance of products; (c) source of financing; and (d) whether an investment can provide a reasonable payback.

An ambition to capture greater access to the market and direct marketing businesses is beneficial to profit maximization. However, there is the question of how necessary it is for a toy manufacturer to know which kind of toys will be successful. What is a good toy? How does one define a good toy? A toy manufacturer’s ambition of the pursuit economic return is bound by its own ability, as the foresights of creativity, innovation and capability of entrepreneurship (including financing) are inadequate. Because of limited human and monetary resources (Chan & Chin, 2007), Manufacturers A, B and D feel that toy manufacturers look for a survival strategy rather than non-practical imaginary goals. This develops into a norm where the toy manufacturers become reliant upon the buyer’s ideas and designs, and then concentrate on lowering manufacturing costs for better efficiency, as the most important priority. Manufacturers’ exploitation of creative ideas to strengthen their design capability (innovation cultivation) is considered not a first priority as mentioned in Section 4.6.3.

Innovation in the Toy Industry has a close association with a firm’s survival, but the level of innovation seen in Hong Kong designed toy products is not of a high enough quality, and is often modification to, or repackaging of, existing products (Lau, Tang &
Yam, 2010), as described in Sections 4.2.2 and 4.2.3. Although avoiding costly investment in design explains the OEM advantage, the OEM-reliant norm, neglecting serious innovation, to which all manufacturers unanimously asserted, hinders the long term prospects of the Hong Kong Toy Industry (Sun & Wing, 2005).

4.9 Contractual Governance and Transaction Costs

4.9.1 Contractual Relationship and Governance, Transaction Costs in OEM and ODM

From a transaction cost point of view, OEM, ODM and OBM have transaction interfaces in respect of their different natures. As an example, Manufacturer B mentions a buyer’s commitment to a manufacturer leading to business in the form of a purchase contract. Manufacturer D describes the case where the buyer supplies a design for a manufacturer to produce (OEM contracting). ODM supplies a design service to buyers (ODM contracting). Manufacturing A speaks about the possibility of integrating ODM into OBM (OBM contracting). Furthermore, Manufacturers C and D mention contracting investments, including design, equipment, machines, tooling, staffing, overheads, component parts and integrated circuit development (if applicable). All of these specificities and interface transactions distinguish OEM, ODM and OBM contracting. Understanding the interfaces of these contractual relationships is important to identify transaction costs, so that Toy Industry stakeholders understand when to react and economize, and to determine the most appropriate contracting mode to adopt. The Simple Contracting Schema of Williamson (2002) states that contractual transactions between manufacturers, retailers and intermediaries are generic trading
transactions through the market, the strategic view of contractual governance in respect of OEM, ODM and OBM, featuring a bilaterally dependent contractual relationship, as depicted in Figure 4-17.

Figure 4-17  OEM, ODM and OBM Contracting Schema in Toy Manufacturing

From the OEM, ODM and OBM contracting schema, a toy supplier (at node A) either lacks manufacturing specificity to trade in generic toys with transactional buyers in the market, or possesses manufacturing specificity and technology towards node B. Under the manufacturing specificity at node B, OEM has its governance system of producing products designed by customers or customers’ brands. OEM manufacturing does not involve design but competes on price, earning a thin profit and often lacking leverage over customers due to the customers’ power over manufacturers’ contracting weaknesses (Dallas, 2014). ODM contracting is distinguished from OEM by design involvement. A toy manufacturer with design capability at node C can either be an ODM manufacturer who designs the toys under a customer’s label, or an OBM
manufacturer who designs, produces and markets its own branded toys.

Uncertainties and opportunism exist in ODM contractual relationships where there is bilateral dependence between manufacturer and buyer, causing both parties to battle to protect their own interests (Williamson, 2002, 2010). Manufacturer F advises that buyers restrict manufacturer’s access to their own core and confidential activities, worrying about manufacturers’ opportunistic behaviour. From an ODM manufacturer’s view, there is the threat of buyers abusing the ODM design attributes incorporated into customer brand loyalty. Consumers align loyalty with customers instead of the ODM manufacturers who designed the toys. It is the ODM intellectual property that ODM manufacturers need to safeguard, by specifying detailed terms and conditions in contracts. Buyers also expend effort ensuring that a fair price is charged by a manufacturer, especially for products with innovative proprietary designs or patents owned by the manufacturer. There are transaction costs for both ODM manufacturers and buyers to monitor and safeguard contractual governance and its execution, which can be costly and cause delays, or can overturn the contractual partnership. Coase (1981) states that contracts last only as long as the parties are willing to bind their relationship.

In addition to ODM contractual governance, there are transaction costs to enhance an ODM manufacturer’s design capability through innovation. These can be expensive and cause the manufacturer to abandon the ODM model and function as an OEM producing customer-designed products at a lower risk (Rodriguez-Pinto, Carbonell & Rodriguez-Escudero, 2011; Sharif & Huang, 2012). Williamson (2008, p. 8) states that “Uncertainty is the source of disturbances to which adaptation is required”. From
Sections 4.2.2 and 4.2.7, and PESTL analysis, a strategic environment to deploy design capability for ODM requires effort in searching, checking, negotiating, monitoring, safeguarding, testing and staffing. All complex contracts are incomplete in nature due to bounded rationality, disturbances and uncertainty at the moment when parties come to agreement. In addition, toy manufacturers may not have sufficient foresight of future product performance (Williamson, 2010).

A contract between buyer and manufacturer to design and produce a good toy is by itself incomplete as one cannot foretell the future which is full of uncertainty and risk. The definition of a ‘good toy’ is vague by itself, causing people to question the goals for its performance, quantity, profitability, design or public critique. From Figure 4-17, a good toy may adopt item specificity, or something more. The same market acceptance uncertainty can be applied to OEM manufacturers who produce customer-designed products. Although buyers are responsible for the marketing and product design, Manufacturer A feels that OEM manufacturers are still affected indirectly by the aftermarket responsibility if such customer-branded products are not selling in the market. OEM manufacturers face keen price competition and weak leverage power over buyers with little room to turn, unlike ODM which has design-added value.

According to Williamson (2008), ambiguous incomplete contracts contain gaps, omission, errors and unexpected occurrences, and unanticipated disturbances can be lessened by crafting a mechanism ex-ante to smooth maladaptation for mutual gain during contract execution. Defects in contracting can also be mitigated by introducing cost-effective ex-ante safeguards to restrain ex-post opportunism. There are transaction
costs in respect of OEM and ODM contractual governance (including the extension to OBM), at which TCE includes provisions to deal with feasible foresights to incomplete contracting (Williamson, 2010). Manufacturers pursuing innovative designs for creative products can produce better profits than those which do not (Lau, Tang & Yam, 2010). The question to toy manufacturers is how to acquire innovation, in which way and to what extent, within one’s ability, as Section 4.2.3 mentions. It is about how a toy manufacturer can enhance its design capability by exploring innovation and then incorporating it into toy design and production (ODM production), or relinquishing design altogether and operating as an OEM. Hong Kong toy companies have a strategic choice to produce all work in-house or to work with a market partner (Chan, Chin & Lam, 2007). Coase (1937) states that the decision of going in-house (ODM manufacturer-designed production) or working with a partner from the market (customer-designed OEM production) depends on the transaction costs. Williamson (2010) asserts that transaction cost economization is central to firms in such contractual relations, distinguishing appropriate options and paths for the firms to progress.

4.9.2 Individuals, Bounded Rationality, Opportunism

Further to Section 4.9.1 which mentions the opportunism between manufacturers and buyers, and Section 4.8.2 which describes the agency problem with corporate executives or personnel pursuing different goals (Chen & Miller, 2010; Medema, 2010; Posner, 2010), deployment of innovation and ODM requires the work of individuals, especially from the leadership of such implementations (Drucker, 2002). The extent of how open or closed is such a system requires consideration of transaction costs in
coordinating activities, maintaining relationships, competing among others, and tackling tensions from external opportunistic behaviour (Dahlander & Gann, 2010). When studying organizations and economics, ‘people’ constitute an indispensable factor that must be included. Yet there are many critiques on opportunistic behaviour that may bias the workings of a free competitive market.

Coase (1976) states that economist Adam Smith, who advocates the ‘invisible hand’ in free market self-regulation, also admits that a human side exists with its self-love domination and the concern of others. Coase cites Adam Smith as saying "nature....has not......abandoned us entire to the delusions of self-love. Our continual observations upon the conduct of others insensibly leads to form to ourselves certain general rules concerning what is fit and proper either to be done or to be avoided” (Smith, as cited in Coase, 1976, p. 532). The classical management functions that Fayol (1949) describes as “planning, organizing, commanding, coordinating and controlling” (Carrol & Gillen, 1987, p. 38) require people to execute, regardless whether it is OEM or ODM in the Toy Industry. Adequate governance is required for safeguarding and monitoring contractual execution by people with bounded rationality and opportunistic behaviour in an uncertain environment. Transaction costs studies provide firms with a practical tool to help them select the correct path for innovation or ODM implementation and to formulate appropriate governance systems. TCE helps to craft the governance mechanism with the lowest cost and the highest efficiency that can be used by management to align staff incentives and evaluate corporate goals.
4.10 Conclusion to Analysis of Research Data

Both the interview data and the study from the literature review enrich the understanding of the Hong Kong Toy Industry evolution featuring the Mainland China manufacturing hinterland. The factors challenging the Hong Kong Toy Industry, with more OEM involvement than ODM, as well as the strategic environment influencing the Toy Industry, are interacting together, and also interfering with each other, in the Toy Industry operating chain. There are exogenous and endogenous reasons that explain the Hong Kong Toy Industry’s present situation, in which OEM is more dominant than ODM, and the hope of innovation or ODM to improve the Toy Industry prospects as well as removing the barriers hindering such development.
Chapter 5  Implication and Conclusion

5.1  Introduction

This chapter discusses the overall research findings, propositions, theoretical and managerial implications, limitations and future research opportunities. This qualitative study concerns the Hong Kong Toy Industry’s behaviour of engaging more OEM than ODM. The study commences with a search of relevant materials as discussed in the literature review. It is followed by interviews with toy manufacturers to understand the current status of Hong Kong Toy Industry which is heavily reliant on manufacturing in Mainland China. From the research findings, key factors influencing the Hong Kong Toy Industry are presented. Some propositions are derived from the study.

5.2  Summary of Major Findings, Significance and Propositions

The Hong Kong toy manufacturers desire faster payback on investment. They do not want to undertake long and complicated projects, or projects with uncertain market acceptance, as the establishment of ODM requires costly investment, significant planning and governance, resources for deploying ODM and quality design personnel. ODM deployment requires the study of design capability and innovation within the Hong Kong Toy Industry, with discussion of the difficulties, challenges and factors influencing the acquisition of design ideas. Toy safety, institutional compliance and buyers’ power affect toy manufacturers’ creativity and toy design. Under the influence of buyers and Chinese manufacturers’ contracts, the toy manufacturers face transaction costs in ODM significantly in excess of those in OEM.
Transaction costs include searching, negotiating, drawing up contracts, resolving conflicts or disputes, monitoring, inspecting, safeguarding and controlling (Coase, 1992). Transaction costs vary according to the extent of specificity in design and ODM investment. As implementing corporate strategy utilizes human resources (e.g. executives and employees) to leverage buyers and suppliers, the Toy Industry stakeholders must acknowledge that human opportunism and self-centred existence may deviate from the corporate goal. Toy companies in this situation undergo a maladaptation process to cope with changes and challenges, and to craft governance structures as well as incentive alignments suitable for the specific situation. This occurs with open market buying and selling transactions and contracting in the form of OEM, ODM or OBM as illustrated in the contracting schema model for the Toy Industry (see Section 4.9.1, Figure 4-17).

All of these activities and interfaces exist as transaction costs that may be very substantial, affecting contractual relations to the extent that may even negate the engagement. Toy manufacturers also experience difficulties due to government policies and taxation. These government influences increase costs and are negative to the Toy Industry. Buyers and toy manufacturers are in a continual state of cost stretching, with costs varying to different extents, depending upon strategic and power factors. From an analysis of supply and demand, toy manufacturers can shoulder less of the cost burden when market demand is inelastic. However, these external forces (externalities) can act as a driving force to compel toy manufacturers to learn to be creative.
From the Theory Building Ladder process of Doz (2011) in Section 3.2, the following discusses the propositions derived from the research.

**Proposition 1:** Government policy and institutional requirements, as well as externalities, increase costs that are shared by (or stretched between) toy manufacturers and buyers. Whether toy manufacturers or buyers absorb more costs is subject to strategic factors and power leverage.

**Proposition 2:** Government policy and regulation encourage or discourage toy manufacturers’ propensity to: (a) accept a high involvement in ODM; (b) accept a low involvement in ODM; and (c) become an OEM.

**Proposition 3:** Toy manufacturers who can sustain inelastic customer demand can function more effectively than those who cannot sustain cost increases and the impact of externalities. Toy manufacturers enhancing design quality and innovation are in a better position than those who pursue cost reduction solely.

Coase (2012) emphasizes the importance of historical, social and cultural factors in the study of an economy. The prosperous ‘World Factory’ productivity model demonstrates that the China government has undertaken several reforms since the open door policy began in 1978, namely, to improve economic infrastructure through conscious political intervention rather than leaving the market to regulate itself. Scholars find the China government and the Chinese people are significantly influenced by the Confucian relational culture, as reflected in several policy implementations (Chen & Miller, 2011). Government intervention in the market is
top-down. In some circumstances this top-down approach is criticised, for example, the suspected manipulation of RMB currency control, the lack of visibility in law enforcement, intellectual property protections, and more (Dallas, 2014; Luk, Noori & Leung, 2004; Wang et al., 2011; Zhang, Huang & Liu, 2012). Adopting the Confucian approach lacks empirical grounding. In some cases it does not solve the root problem but only calms down the condition by reconciling the differences into a harmonious state via relational influences. Such relational settlement provides convenience, but sometimes attracts corruption (Schwartz, 2014), as one may choose relational influence to achieve results when difficulties are encountered. This is a problem as relational settlement often deviates from the Western approach which perceives that the result is based on the empirical testing of data. The Western approach is comparatively positivist (either ‘Yes’ or ‘No’, ‘Pass’ or ‘Fail’). However, it is impossible to certify such answers through relational means. Whether a toy passes or fails a safety test, or a buyer makes a purchase or does not make a purchase, there is no hybrid state of semi-pass or semi-purchase. The relational norm is a less formal way of bypassing the formal technical examination process, with the result that China is criticized as exhibiting low visibility in law enforcement and lack of protection of intellectual property. In reacting to this problem, the China government launches nation-wide anti-corruption campaigns in an attempt to correct and to bring the problem under control (Wang et al., 2009).

**Proposition 4:** Traditional Chinese culture, which is more relational based, has significantly influenced innovation and creative design development in the Toy Industry, unlike the Western approach, which is empirically based.
In spite of toy manufacturers being more involved in OEM than ODM, ODM is widely regarded as better for survival than OEM. ODM involves both manufacturing and design, while OEM engages manufacturing only. From the interviews and literature review, the transaction costs of sustaining OEM and ODM in the Toy Industry constitute a significant factor, which explains the behaviour of the Toy Industry. The transaction costs to the Toy Industry include: (a) searching (sourcing); (b) investment ex-ante to prepare for an upcoming contractual relationship; (c) bargaining with buyers and suppliers; (d) negotiating terms and clauses; (e) ex-post governance of contractual implementation; (f) safeguarding; (g) legal compliance; (h) coping with opportunistic behaviour; (i) testing; (j) inspecting; and (k) controlling.

The transaction costs to OEM manufacturers are not straight forward. OEM manufacturers are in a passive position since buyers rule over them with: (a) product design specifications; (b) purchase orders; (c) contracting or licensing powers; and (d) control of market demand through the buyers’ distribution channel, advertising, promotion and sales strategies. OEM manufacturers compete with each other on price, and buyers are generally the price-takers (Nelson, 2013). OEM manufacturers invest in production facilities in advance in order to attract buyers, and then consider customer-design project alignment, checking, pricing, production and shipping.

The transaction costs to ODM manufacturers are different from OEM. Additional effort is required to establish a design team and equipment in advance of business discussions. This associates with the quality of design or patent/licence development and the buyer’s acceptance of the manufacturer’s design. In some cases, a manufacturer must shield against a buyer’s opportunism to make use of the
manufacturer’s technology or patents in terms of tied loyalty or passing the proprietary manufacturer’s technique or idea to other competitive manufacturers to imitate. On the other hand, buyers are reluctant to disclose sensitive information or product design to manufacturers because of the risk of the supplier abusing the confidential information (Shou et al., 2013). Some people believe that ODM can sell products at better profit margins than OEM, which makes ODM more attractive. However, the transaction cost of attaining buyer and market acceptance (including ex-ante investment, ex-post governance of safeguarding and monitoring) can be very costly and may even lead to a manufacturer abandoning the design function, adopting the buyer’s design and operating as an OEM.

**Proposition 5:** The design resources of the Hong Kong toy manufacturers in the acquisition of creative ideas are affected by market uncertainty and short product life, and are constrained by a buyer’s protection of proprietary knowledge and institutional compliance.

**Proposition 6:** Opportunistic behaviour occurs between toy manufacturers and buyers on proprietary technology, design ideas and brand loyalty, as well as executives and employees who pursue short-term goals or risky projects, deviating from corporate goals.

**Proposition 7:** OEM and ODM have different transaction costs, and the avoidance or reduction of transaction costs constitutes a major reason whether or not a toy manufacturer engages in OEM or ODM.
Proposition 8: When a resource is scarce, Hong Kong toy manufacturers prefer immediate productivity for reasons of faster cashflow and return on investment rather than investing in remote goals of design and innovation.

Enhancing the Hong Kong toy manufacturers’ design capability and quality requires a ‘breakthrough innovation mindset’ (Drucker, 2002). As already discussed, Chinese manufacturers are influenced significantly by traditional Confucian culture featuring a different interdependence framework (Chen & Miller, 2011). Interdependence means establishing or expanding a relationship with a partner. For historical reasons China’s technology development is slower than and different from the West (Zhu, 2012). China has opened her door to the world since 1978, incorporating capitalism and Western science and technology (Coase & Wang, 2013). Innovation development requires time and effort. Mainland China’s innovation development, especially the support from the China government, is still very immature. Hong Kong adopted a positive non-intervention policy in the 1960-70s to facilitate industrial infrastructure (not directly to manufacturers) and then revisited its innovation and technology policies in 1997. However Hong Kong is still weak in basic industrial research (Yam et al., 2011). Technology and innovation development of the Chinese Toy Industry is progressing slowly, but the industry is learning to adapt. During this learning process, there are challenges and constraints impacting upon the Toy Industry.

In PESTL and on the strategic side, there are: (a) government policies (RMB, taxes, demographic and economic); (b) support (positive and negative); (c) externalities (indirect influences); (d) compliances (factory certification, product safety); (e) financing difficulties (innovation and design are costly investments); (f) strategic
considerations (competition, opportunism, contracting weakness, buyers’ control of design and defence of interest, and cost stretching leverage with suppliers); (g) influence from Western technology development; and (h) the Chinese mindset of “try something new and wait and see what happens” (Coase & Wang, 2013, p. 839).

These factors influence Chinese toy designers to build on or modify ideas, concepts and products from the existing market that they perceive as something that may be successful in the current strategic environment. The interviews reported that many similar products (“me too” products) exist in the market, and modification or repackaging has become the Toy Industry norm (Yam et al., 2011; Lau, Tang & Yam, 2010). Sun and Wing (2005) state that Hong Kong toy manufacturers are not doing enough in the area of innovation. The innovative mind is the heart of entrepreneurship, for new opportunities rarely occur under a traditional approach. There are people with innovative minds who must be aligned in the correct direction (Drucker, 2002). Gronroos (1995) states that marketing is interactive in nature and one should not neglect the part-time marketers who do not belong to established marketing departments. To do well with innovation, one should not dwell on the inherited norm, but should be aware of other areas and be open-minded. Coase (1960) repeatedly critiques the behaviour of people accepting the present market situation as ‘taken for granted’ (Coase, 1960), and one should always acquaint, think and examine.

Among external and internal influences, people with innovation possess similar characteristics of the ‘uncertainties’ challenge to Toy Industry stakeholders. Technology evolution consists of different specificity to toy manufacturers (no matter whether they are hi-tech, include more electronics or an internet platform via smartphone and social media) that change the world to a different extent. The rise of the
China manufacturing industry has led the Hong Kong Freight Terminal to handle the vast volume of China-made exports and became the world busiest port between 1980 and 1994 (Liu, Wang & Yip, 2013). Hong Kong was under British rule for approximately 150 years, during which time Hong Kong learned Western culture and technology, resulting in good transportation and communication systems facilitating the growth and evolution of the Toy Industry. The return to China sovereignty in 1997 made Hong Kong the bridge between Mainland China and the West. Hong Kong receives support from Mainland China to continue to be the world’s leading toy export city.

**Proposition 9:** Hong Kong, with efficient traffic and communication systems, reduces the transaction costs of the Toy Industry and facilitates the Toy Industry no matter whether it engages in OEM, ODM or OBM.

The Hong Kong toy manufacturers confront influences locally and from Mainland China, and adapt to specificities in manufacturing and technology. Contracting is difficult, as one cannot foretell the future success of a product at the time of the initial contractual agreement, as well as uncertainties arising from environmental factors that incur transaction costs.

**Proposition 10:** OEM or ODM contracting is incomplete in nature as neither toy manufacturers nor buyers can foretell whether a toy product will be successful in the market. The Hong Kong toy manufacturers’ conservative and risk-avoidance mindset concerning return on investment affects their propensity to involve OEM or ODM.
During the learning process, Chinese toy manufacturers exhibit different behaviours. As discussed, some manufacturers exhibit a propensity to modify or repackage existing products while other manufacturers aim for production efficiency in OEM for faster cashflow payback and straightforward production from a customer’s design, without concern for design and market acceptance. Apart from the conservative mindset of toy manufacturers, the high profile positioning of China as the ‘World Factory’ is in itself a brand image to customers concerning China’s proficiency in productivity rather than design. Although some toy manufacturers are pursuing creative innovation to launch new products into the market, such creativity is not easy, causing OEM involvement to be higher. Buyers are defensive and set barriers to restrain Chinese toy manufacturers from accessing important aspects of a project (Dallas, 2014), minimizing the Chinese toy manufacturers’ opportunity to learn the Western way of thinking. Since access to design ideas from customers is restricted, some toy manufacturers seek consultants to acquire ideas and to pass them on to Chinese toy manufacturers (Yam et al., 2011). This is costly and difficult and leads to limited success. From the factors and influences discussed, Hong Kong toy manufacturers have their respective reasons and abilities to adopt OEM or ODM, or both together. The ambition versus the ability, as seen through the lens of transaction costs, explains why some toy manufacturers elect to design in-house (ODM and OBM), while some prefer working with a partner who supplies the design to the manufacturer (OEM).
**Proposition 11:** To regard a toy manufacturer’s endogenous design capability as a valuable resource has yet to obtain acceptance and legitimacy from exogenous environments and institutions. Furthermore, it is difficult to regard an ODM manufacturer’s design ability as an advantageous resource, and this is one of the key reasons for the Hong Kong Toy Industry involving itself in more OEM than ODM.

5.3 Implication

5.3.1 Theory Implication

There are discussions of different theories and models with their strengths and weaknesses in specific situations. Transaction costs are adopted as the measurement tool and mainstream theory for this research study. The decision for selecting OEM or ODM is based on which has the lower transaction cost (Coase, 1992; Williamson, 2010). This does not mean to neglect the contribution of other theories. Through the lens of transaction costs, these theories find their place, providing positive motivation to attract further debate and exploration of applications to allow them to become more relevant and practical to a specific industry, and in some circumstances to emerge as propositions or theories. For instance, when the Porter FFF is applied without transaction costs (Narayanan & Fahey, 2005), Porter’s model of strategic bargaining power between buyers and sellers is used to construct the model of Buyers and Suppliers Cost Stretching Continuum (see Section 4.6.5 Figure 4-16) of the cost stretching continuum between buyers and sellers. Contractual governance involving economic exchange is influenced by transaction characteristics (Williamson, 1981,
2002, 2010), and the model of Contracting Schema in Toy Manufacturing (see Section 4.9.1, Figure 4-17) is crafted to illustrate the different transaction interfaces characterizing OEM, ODM and OBM.

Coase (1998) states that mainstream economics have become too theory-driven, (resembling the ‘black box’ approach) lacking a practical real world relevance. The mainstream model of supply and demand curves is used as a base to show the phenomenon. Transaction costs are used to explain the workings of supply and demand movements in the Toy Industry, with the result that both of the models of supply and demand curves and transaction costs are more meaningful and relevant to the real world. In these circumstances, the theories support each other in more holistic studies.

Transaction costs can distort the whole supply and demand relations and outcomes. As discussed, transaction costs influence toy manufacturers to: (a) engage in ODM with the toy design function; or (b) work as an OEM to produce toys designed by buyers. Coase (1937) states that transaction costs are the reason why a firm chooses to do certain activities in-house or work with a partner from the market. Substantial transaction costs can prevent any contractual relationships from occurring, and setback on-going contracts. The theory of transaction costs development is not easy, as discussed in Sections 2.3.1 and 2.6, and has undergone rigorous debate and empirical study (Coase, 1960, 1993, 2003; Hahn, 2013; Schwartz, 2014; Williamson, 2010).

To support innovation development in the Toy Industry, governments can act as ‘super firms’ which get things done more efficiently than private individuals with appropriate
policy and implementation (Coase, 1960). This can save significant transaction costs during implementation. The economic boom in Eastern Europe and China demonstrates the existence and power of government and institutional influence (Coase, 1992, 2012). Some economists think economic inefficiency is not necessarily due to government (Marciano, 2013). However, government imposed taxes are a fact, and may incur deadweight losses and inefficiency (Atkinson & Stiglitz, 1972), generating problems and difficulties for toy manufacturers. Coase states that government is supporting or harming depending on whether government has a broker’s view of seeing things strategically after considering all stakeholders and affiliated transaction costs, and the evaluation may lead government to do nothing (Coase, 1960; Hahn, 2013). From the interviews with Hong Kong toy manufacturers, there are pros and cons of government policies relating to the Toy Industry, whether they are advantageous or not in supporting the Toy Industry to cultivate quality innovative design ability. This innovative design capability affects the development of ODM which may further lead to brand building in the OBM industry.

The existence of government and institutions is real and invariably influences the Toy Industry and the economy to incur transaction costs. The Stakeholder Theory respects the existence of different stakeholder inequalities, and firms neglecting it will not perform well in the long term (Freeman, 1994). People should study how these institutional forces affect and facilitate the economy (Coase, 1992, 2012). Williamson (2010, p. 224) states that “selectively combining law, economics and organization to study the governance of contractual relations from a transaction cost economizing perspective has been instructive”.
5.3.2 Managerial Implication

This study, using feedback from the interviews with toy manufacturers, indicates that Hong Kong toy manufacturers are experiencing a variety of challenges to different extents. These phenomena are further categorized in the drawing up 11 propositions, encompassing: (a) why Hong Kong toy manufacturers engage more OEM than ODM; (b) what barriers restrict them in developing ODM; or (c) the misalignment and insufficient support issues, which are the aims of this qualitative research discussed in Section 3.2.1. Echoing the ICTI findings, there are external factors (e.g. increased material cost, economic downturn and RMB appreciation) and also internal factors (e.g. recruitment and retention of good workers) which are the greatest challenges to toy manufacturers (ICTI, 2012). Profit maximization is rational in an economic sense. Cultivating innovation and developing quality ODM are already clear messages to toy manufacturers for the sustainability of the Toy Industry. From Figure 2-4 in Section 2.6 and Proposition 3, incorporating quality innovation into product design retains a more inelastic product demand so that toy manufacturers can defend against externalities and extra cost burdens. Toy manufacturers are experiencing various transaction cost challenges from the strategic environments. Their mindsets are becoming more conservative due to the uncertainty of the ROI. The toy manufacturers’ response is contingent upon their respective conditions and ability to manage. Coase and Wang (2013) state that innovation is the key for China to improve industry prospects and to develop brand building. Innovation is not relied upon as a firm’s sole internal factor, but interacts with “the flows of technology and information among people, enterprises and institutions that are the key to the innovation process” (Yam et al., 2011, p. 391).
It is difficult to acquire knowledge, particularly tacit new knowledge, without acquiring key individuals and talents (Yam et al., 2011). However, as mentioned in Section 4.9.2, humans exhibit characteristics of opportunistic and self-centred behaviour that incur transaction costs (Coase, 1976; Williamson, 2010; Yam et al., 2011). These different interfaces occur in a bilateral dependence situation among firms and individuals. Resource scarcity determines the extent of bilateral dependence affecting the incentive, propensity and governance in cooperative contractual activities (Shou et al., 2013). Their relations and governance structures are already illustrated in the ‘OEM, ODM and OBM Contracting Schema in Toy Manufacturing’ (see Table 4-16 in Chapter 4). These factors have influenced the Hong Kong Toy Industry, involving more OEM than ODM. An awareness of enhanced design ability with an innovative mindset is observed, but it may take time for the Toy Industry evolution.

Hong Kong has a close business and administrative relationships with Mainland China under the ‘one country, two systems’ concept. By definition, alignment differences already exist between the two areas with two different systems that incur transaction costs to Toy Industry stakeholders. Hong Kong and Mainland China cooperate with one another, but sometimes they are competitive. Appropriate positioning is important for bilateral relationship benefits to continue. Liu, Wang and Yip (2013) describe the rise of Mainland China Shenzhen ports with a corresponding reduction in exports through Hong Kong. Hong Kong, with its outstanding trans-shipment efficiency that can reduce transaction costs of coordination and scattered ports, has evolved into an international hub featuring a global supply chain management centre and a gateway port into the world market. Chung, Yam and Chan (2004) state that design is an
innovative process. Hong Kong toy manufacturers have already relocated their production facilities into Mainland China. Quality R&D and coordination of services are the clear goals for positioning the Toy Industry in Hong Kong.

As an overall managerial implication of the study, government, institutions, buyers, toy manufacturers and other Toy Industry stakeholders must acknowledge that these situations and factors influence Toy Industry prospects and opportunities, and must accept the reality of inadequate innovation quality, cost increase pressures, PESTL influences and other issues impacting the Toy Industry. There are threats to, but also opportunities for, a brighter prospect. Drucker (2002, p. 5) states that an “entrepreneur either creates new wealth-producing resources or endows existing resources with enhanced potential for creating wealth”. This vision encourages a long-term mindset in toy manufacturers rather than seeking immediate short-term profits. However, manufacturers lack confidence and are apprehensive due to uncertainty. In this situation, government support is vital so that the Toy Industry stakeholders share the same vision. Coase (1960) states that government is a ‘super-firm’ that can undertake projects more efficiently and more powerfully than the private sector, provided government takes a ‘broker’ view and considers all strategic factors and stakeholders.

5.4 Limitation and Implication for Future Research

This research adopts a qualitative approach to study the norm of the Hong Kong Toy Industry involving more OEM than ODM, and then diagnoses the factors influencing such behaviour to determine the root problems causing such a situation. There are limitations to this research. The data collected during the research is based on a sample
of six interviews (limited by the resources and time available to the project) and cannot represent the whole Toy Industry or all toy manufacturers. Every effort is made to ensure the genuineness of feedback from the six toy manufacturers, as well as the literature review. The sampled toy manufacturers are selected from the ICTI database. Manufacturers who are not registered in the ICTI are not included in the sampling plan, as it is difficult to verify their legitimacy. The factors influencing the Toy Industry are complicated and interact with each other, and it is difficult to generalize a regression model via a quantitative approach (Chan, Chin & Lam, 2007).

The rich stories from the interview process are worthy of further study. Further research topics include: (a) the factors influencing cost stretching between toy manufacturers and buyers; (b) the transaction cost of institutional requirements in the Toy Industry; (c) the social cost to the Toy Industry arising from the China government’s pursuit of political stability; (d) how traditional Chinese culture affects manufacturing business in Mainland China; and (e) the transaction costs of mobilizing innovation development in the Hong Kong Toy Industry.

5.5 Conclusion

This research studies Hong Kong toy companies with major investments in production facilities in Mainland China. Hong Kong is historically influenced by Britain and China. Hong Kong returned to China in 1997 as a special administrative region under the ‘one country, two systems’ policy, providing bilateral dependence and a competitive relationship for the Toy Industry. From the literature review and qualitative interviews with Hong Kong toy manufacturers, it is found there are several
factors influencing the Hong Kong Toy Industry that involve more OEM than ODM, and the constraint of developing quality design and innovation. Toy manufacturers are ambitious, conscious of their importance and respond differently according to their own abilities and reasons. Through the lens of transaction cost studies in PESTL and the Strategic dimension, key factors, barriers, problems and support are identified. This research provides information to Toy Industry stakeholders to evaluate and act upon, so that the Hong Kong Toy Industry, with Mainland China as a production hinterland, can facilitate each to a brighter future. Friedman (1970) presents an article “The Social Responsibility of Business is to Increase its Profits”. It is worth rethinking this article’s message as it advocates efficiency in order to bring revenues to the government and companies, creating employment and household income. Improving the industry and the economy is the social responsibility of everyone.
References


ITF (2014). Innovation and Technology Fund. Retrieved from:


Reuters (2014). ‘Obama urges China to be partner in ensuring world order’. Retrieved from:


SCMP (2013). South China Morning Post. ‘Hong Kong remains world's freest economy, report says’. Retrieved from:


The Economist (2012). ‘Consequences of the one-child policy, Perils of motherhood’. Retrieved from:
(accessed on January 26, 2015).

(accessed on January 26, 2015).

The Hong Kong Shippers’ Council (2014). Retrieved from:


The World Bank (2014). ‘GDP Growth (annual %) Data’. Retrieved from:

Toys R Us (2010). Retrieved from:
https://vendorconnect.toysrus.com/vendorextranet/documents/TRUGPSQC%20Manua


Against Terrorism’. Retrieved from:
rtnership-against-terrorism, accessed on November 18, 2014.


Appendix 1

Participant Information Statement
Participant Information Statement - Anonymous Surveys/Questionnaires

For further information:
Chief Investigator: Dr. Leonard Whitehouse
Newcastle Business School
Faculty of Business and Law
University of Newcastle

Student Researcher: Lam Kin-shing (Kevin)
Newcastle Business School
Faculty of Business and Law
University of Newcastle
e-mail address: kshing.lam@uon.edu.au

Participant Information Statement for the Research Project:
The Hong Kong Toy Industry – A Qualitative Study

You are invited to participate in the above research project conducted by Lam Kin-shing (Kevin) and supervised by Dr. Len Whitehouse from the Business School of the University of Newcastle as part of a Doctor of Business Administration degree undertaken by Lam Kin-shing (Kevin).

Why is the research being done?

The project examines the imbalance between original equipment manufacturing (OEM) and original design manufacturing (ODM) in the Hong Kong toy industry. OEM involves production according to customer-provided designs. ODM involves production based on the firm’s own designs. Hong Kong Trade Development Council surveys the OEM and ODM involvement ratios of Hong Kong toy firms indicating 91% and 68% respectively. The Hong Kong toy industry has major investments in Mainland China, and Hong Kong and China together produce approximately 75% of toys worldwide. OEM has the advantages of avoiding costly research and development (R & D) and reduces R & D failures, but labour costs, currency fluctuations, environmental compliances and competition result in OEM business becoming less profitable. When analysing improvements to the toy industry, some researchers state that firms are too reliant on OEM, and insufficient ODM in firms is a problem affecting the long term prospects of the Hong Kong toy industry and brand development. The research investigates the key factors influencing the Hong Kong toy industry in its focus on OEM rather than ODM. The investigation will make use of six in-depth qualitative interviews with the executives of Hong Kong toy manufacturers to explore reasons for this trend, and to identify the factors behind the trend, to discern a more focused direction for the stakeholders to formulate strategy to solve (or to reduce) the problem in the Hong Kong toy industry. In addition, the research process includes Transaction Cost Economics (TCE) which encompasses firm governance and contractual governance to guide the interviews. As there is no prior study applying TCE to the Hong Kong and China toy industry, it is expected that TCE will make a practical contribution to the project. As Ronald Coase (a Nobel Prize laureate) states mainstream economics offer very little practical insight, and TCE represents what economics should be.
Who can participate in the research?
Senior executives working in the Hong Kong toy industry in executive or managerial positions can participate in this research.

What choice do you have?
It is entirely your choice to participate in this research. Only individuals who consent will be included in the research. The decision not to participate will not disadvantage you.

If you decide to participate, you may withdraw at any time during the interview process without giving any reason.

What would you be asked to do?
After you have read the Participant Information Statement and wish to participate, please contact the student researcher, Lam Kin-shing (Kevin), to arrange a date, time and place for the interview. Prior to the interview, you will be invited to sign the attached consent form. During the interview, you are asked to give honest opinions in response to the questions asked. A copy of the broad questions is attached for your reference. Once the interview has been transcripted by the student researcher (Kevin), you will be asked to verify or edit the transcription.

How much time will it take?
The interview will take about one hour to complete. There may be short follow-up interviews (in person or by telecommunications).

What are the risks and benefits of participating?
There are neither risks nor direct benefits for individual participants. However, it is hoped the research will provide the Hong Kong toy industry with a better understanding of the imbalance between OEM and ODM and a definition of the factors influencing such an imbalance, allowing the formulation of a strategy to rectify the imbalance between OEM and ODM.

How will your privacy be protected?
Firms and interviewees will remain anonymous throughout the research and in publications related to the research. Identifying data will be replaced by pseudonym, e.g. “Company A” for a firm’s name, “Interviewee A” for the individual. All soft and hard copies of the data and associated records will be kept in the researcher’s locker or password-protected Personal Computer in secured premises, and will be disposed of in accordance with the University of Newcastle’s policy and procedures for the disposal of confidential material. The collected data will be stored for a minimum of 5 years in a safe repository provided by the University of Newcastle. You are also protected by the Hong Kong privacy ordinance.

How will the information collected be used?
The research results will be reported and presented as part of the researcher’s DBA dissertation. The results may also be reported in articles from scholarly journals or academic papers. The researcher will send a summary of the results to the companies participating in the research after the approval of the dissertation. In all publications, the toy companies and individual respondents will remain anonymous.

What do you need to do to participate?
Please read this Information Statement and be sure you understand its contents before you consent to participate. If there is anything you do not understand, or should you have questions, please contact the student researcher, Lam Kin-shing (Kevin).
Further information
If you would like further information please contact: Dr. L. Whitehouse. E-mail address: l.whitehouse@bigpond.com. Telephone No. +61 439 707 717

Thank you for considering this invitation.

Dr. Leonard Whitehouse  Lann Kin-shing (Kevin)
Chief Investigator  Student Researcher

Complaints about this research
This project has been approved by the University’s Human Research Ethics Committee, Approval No. H-2014-2015.

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which this research is conducted, it may be given to the researcher, or, if an independent person is preferred, to the Human Research Ethics Office, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone 02 49216000, email human.ethics@newcastle.edu.au.
Appendix 2

Participant Consent Form
Consent form for Interviews

Newcastle Business School
Faculty of Business and Law
Corner King and Auckland Street
Newcastle 2300
AUSTRALIA

Project Supervisor: Dr. Leonard Whitehouse
Newcastle Business School
Faculty of Business and Law
University of Newcastle

Student Researcher: Lam Kin-shing (Kevin)
Newcastle Business School
Faculty of Business and Law
University of Newcastle

E-mail address: kinshing.lam@nus.edu.au

Date: _______________________

Consent Form for the Research Project:
The Hong Kong Toy Industry – A Qualitative Study

I, __________________________________________, have read the Participant Information Statement and the Interview Protocol with interview questions, and wish to participate in a face-to-face interview for the above research project and give my consent to participate in this study.

I agree to participate in an interview conducted by Lam Kin-shing (Kevin) from the University of Newcastle, and I understand that I can withdraw from the interview at any time without giving reasons.

I consent to audio recording of the interview.

I understand that I am able to review and edit my transcript during and after the interview.

I understand that my identity will remain confidential to the researchers and that my personal information will be stored in a secured place and destroyed on completion of the research. I also understand that I have the right to anonymity in all reports of the research findings.

Print Name: __________________________________________

Contact details: __________________________________________

Signature: __________________________________________

Date: _______________________

NEWCASTLE  |  CENTRAL COAST  |  PORT MACQUARIE  |  SINGAPORE
Appendix 3

Interview Protocol
Interview Protocol

1. Introductory Remarks

This project examines the imbalance between original equipment manufacturing (OEM) and original design manufacturing (ODM) in the Hong Kong toy industry (HKTDC, 2013; FHKI, 2010; Sun and Wing, 2005; Zhang, 2011). OEM involves production according to customer-provided designs (Chau, Chin and Lam, 2007). ODM involves production based on the firm’s own designs (Sun and Wing, 2005). HKTDC (2013) surveys the OEM and ODM involvement ratios of Hong Kong toy firms and indicates 91% and 68% respectively. The Hong Kong toy industry has major investments in Mainland China. Hong Kong and China together produce approximately 75% of toys worldwide (FHKI, 2010). OEM has the advantages of avoiding costly research and development (R & D) and reduces R & D failures, but labour cost, currency fluctuation, environmental compliance and competition result in OEM business becoming less profitable (Zhang, 2011). When analysing improvements to the toy industry, Sun and Wing (2005) state that firms are too reliant on OEM and there is insufficient ODM in firms which is a problem affecting the long term prospects of the Hong Kong toy industry and brand development. The research investigates the key factors influencing the Hong Kong toy industry and its focus on OEM rather than ODM (Sun and Wing, 2005). The investigation will make use of in-depth qualitative interviews to explore the reasons for this trend, and to identify the factors causing this so as to ascertain a more focused direction for the stakeholders to formulate strategies to solve (or to reduce) the problems in the Hong Kong toy industry.

2. Interview Questions

A. Background and Introduction:

1. What kind of toy business is your company? (OEM manufacturer, ODM manufacturer, OBM manufacturer, or a mix?)

2. How long has the company been in operation? (1-10 years, 11-20 years, 21-30 years, 31-40 years, over 40 years?)

3. How long have you been working in this company? (1-10 years, 11-20 years, 21-30 years, 31-40 years, over 40 years?)

4. What is your position in the company? (Proprietor, director, general manager or senior manager)

5. Is your company Hong Kong based? (Yes or No)

6. How many employees are employed? (count to the nearest hundred)

7. What are the types of toys produced? (Hard toys or soft toys, using battery or not, customer’s label or manufacturer’s own brand?)
B. The Toy Industry

1. The surveys from HKTDC and FHJK show the Hong Kong toy industry has more involvement of OEM (91%) than ODM (68%). What are the advantages attributing to greater OEM involvement?

2. What are the advantages of ODM?

3. What are the key problems for the Hong Kong toy industry being so reliant on OEM rather than ODM?

4. Based on the following five dimensions advocated by researchers Wang, Singh, Samson and Power (2011), please describe how they affect the toy industry undertaking more OEM than ODM?
   a. Political and Legal dimension (includes rules, compliances).
   b. Economical dimension (includes financial, currency, costs).
   c. Socio-cultural dimension (includes culture, social factors).
   d. Technological dimension (includes innovation, technology and communication).
   e. Strategic dimension (includes the competitive environment, customers, suppliers and core competency of a firm).

5. Researchers Yam, Lo, Tang and Lau (2011) find the Hong Kong technologically innovative products are normally developed by modifying existing products. The marketing knowledge of Hong Kong toy manufacturers relies on their customers or suppliers. The ability of a firm to exploit external knowledge is the key to successful innovation. Do you agree these for the Hong Kong toy industry, and why?

6. From questions 4 and 5, what are the problems the Hong Kong toy industry facing? Who are the stakeholders?

7. Sun and Wing (2005) recommend the Hong Kong toy industry needs to develop more ODM and innovation. Please advise the key factors affecting Hong Kong toy manufacturers investing in ODM, and also the difficulties they encounter?

8. If your company is already engaging ODM, can you describe how it works? What are the specific investments? What are the advantages of engaging ODM in your company? How are problems or difficulties overcome during ODM implementation?

9. If your company does not involve ODM, what is your recommendation to the Hong Kong toy manufacturers to implement ODM?

C. Transaction Costs

1. Coase (1937) and Williamson (1981, 2010) have a high regard for the transaction cost concept in the delimitation of an efficient firm size and its contractual governance. Williamson (1985) extends transaction cost to include before costs (drafting, negotiating
and safeguarding an agreement) and after costs (contracting, re-adaptation, haggling and operations associated with governance structures). When applying transaction costs to the Hong Kong toy industry, how do transaction costs explain the imbalance between OEM and ODM?

References


Appendix 4

Approval from

Human Research Ethics Committee of the
University of Newcastle Australia
**Notification of Expedited Approval**

<table>
<thead>
<tr>
<th>To Chief Investigator or Project Supervisor:</th>
<th>Doctor Len Whitehouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ce Co-investigators / Research Students:</td>
<td>Mr Kin Shing Lam</td>
</tr>
<tr>
<td>Re Protocol:</td>
<td>The Hong Kong Toy Industry - A Qualitative Study</td>
</tr>
<tr>
<td>Date:</td>
<td>14-Aug-2014</td>
</tr>
<tr>
<td>Reference No:</td>
<td>H-2014-0215</td>
</tr>
<tr>
<td>Date of Initial Approval:</td>
<td>13-Aug-2014</td>
</tr>
</tbody>
</table>

Thank you for your **Response to Conditional Approval** submission to the Human Research Ethics Committee (HREC) seeking approval in relation to the above protocol.

Your submission was considered under **Expedited** review by the Chair/Deputy Chair.

I am pleased to advise that the decision on your submission is **Approved** effective 13-Aug-2014.

**For noting**: Within the complaints statement at the end of the Participant Information Statement, please provide the details of a local independent contact in place of those of the University of Newcastle Human Research Ethics Officer.

In approving this protocol, the Human Research Ethics Committee (HREC) is of the opinion that the project complies with the provisions contained in the National Statement on Ethical Conduct in Human Research, 2007, and the requirements within this University relating to human research.

Approval will remain valid subject to the submission, and satisfactory assessment, of annual progress reports. *If the approval of an External HREC has been “noted” the approval period is as determined by that HREC.*

The full Committee will be asked to ratify this decision at its next scheduled meeting. A formal **Certificate of Approval** will be available upon request. Your approval number is **H-2014-0215**.

If the research requires the use of an Information Statement, ensure this number is inserted at the relevant point in the Complaints paragraph prior to distribution to potential participants. You may then proceed with the
Conditions of Approval

This approval has been granted subject to you complying with the requirements for Monitoring of Progress, Reporting of Adverse Events, and Variations to the Approved Protocol as detailed below.

PLEASE NOTE:
In the case where the HREC has "noted" the approval of an External HREC, progress reports and reports of adverse events are to be submitted to the External HREC only. In the case of Variations to the approved protocol, or a Renewal of approval, you will apply to the External HREC for approval in the first instance and then register that approval with the University's HREC.

- Monitoring of Progress

Other than above, the University is obliged to monitor the progress of research projects involving human participants to ensure that they are conducted according to the protocol as approved by the HREC. A progress report is required on an annual basis. Continuation of your HREC approval for this project is conditional upon receipt, and satisfactory assessment, of annual progress reports. You will be advised when a report is due.

- Reporting of Adverse Events

1. It is the responsibility of the person first named on this Approval Advice to report adverse events.
2. Adverse events, however minor, must be recorded by the investigator as observed by the investigator or as volunteered by a participant in the research. Full details are to be documented, whether or not the investigator, or his/her deputies, consider the event to be related to the research substance or procedure.
3. Serious or unforeseen adverse events that occur during the research or within six (6) months of completion of the research, must be reported by the person first named on the Approval Advice to the (HREC) by way of the Adverse Event Report form (via RMS at https://rms.newcastle.edu.au/login.aspx) within 72 hours of the occurrence of the event or the investigator receiving advice of the event.
4. Serious adverse events are defined as:
   o Causing death, life threatening or serious disability.
   o Causing or prolonging hospitalization.
   o Overdoses, cancers, congenital abnormalities, tissue damage, whether or not they are judged to be caused by the investigational agent or procedure.
   o Causing psycho-social and/or financial harm. This covers everything from perceived invasion of privacy, breach of confidentiality, or the diminution of social reputation, to the creation of psychological fears and trauma.
5. Reports of adverse events must include:
   o participant's study identification number;
   o date of birth;
   o date of entry into the study;
   o treatment arm (if applicable);
   o date of event;
   o details of event;
   o the investigator's opinion as to whether the event is related to the
     research procedures; and
   o action taken in response to the event.

6. Adverse events which do not fall within the definition of serious or
   unexpected, including those reported from other sites involved in the
   research, are to be reported in detail at the time of the annual progress
   report to the HREC.

* Variations to approved protocol

If you wish to change, or deviate from, the approved protocol, you will need to
submit an Application for Variation to Approved Human Research (via RIMS
at https://rims.newcastle.edu.au/login.asp). Variations may include, but are not
limited to, changes or additions to investigators, study design, study population,
number of participants, methods of recruitment, or participant information/consent
documentation. Variations must be approved by the (HREC) before they are
implemented except when Registering an approval of a variation from an
external HREC which has been designated the lead HREC, in which case you may
proceed as soon as you receive an acknowledgement of your Registration.

Linkage of ethics approval to a new Grant

HREC approvals cannot be assigned to a new grant or award (ie those that were
not identified on the application for ethics approval) without confirmation of the
approval from the Human Research Ethics Officer on behalf of the HREC.

Best wishes for a successful project.

Professor Allyson Holbrook
Chair, Human Research Ethics Committee
Appendix 5

Answers to Interview Questions
Figure 4-1  Summary of the interviewed companies and interviewees (Interview Question A)

<table>
<thead>
<tr>
<th>Toy Manufacturer</th>
<th>OEM involvement</th>
<th>ODM involvement</th>
<th>Interviewee position</th>
<th>Years of company</th>
<th>Interviewee experience</th>
<th>Employee count (nearest hundred)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Yes</td>
<td>No</td>
<td>Proprietor</td>
<td>11-20 years</td>
<td>11-20 years</td>
<td>2500</td>
</tr>
<tr>
<td>B</td>
<td>Yes</td>
<td>No</td>
<td>Proprietor</td>
<td>21-30 years</td>
<td>21-30 years</td>
<td>2000</td>
</tr>
<tr>
<td>C</td>
<td>Yes</td>
<td>Yes</td>
<td>Proprietor</td>
<td>21-30 years</td>
<td>21-30 years</td>
<td>400</td>
</tr>
<tr>
<td>D</td>
<td>Yes</td>
<td>Yes</td>
<td>Proprietor</td>
<td>11-20 years</td>
<td>11-20 years</td>
<td>800</td>
</tr>
<tr>
<td>E</td>
<td>Yes</td>
<td>Yes</td>
<td>Director</td>
<td>over 40 years</td>
<td>11-20 years</td>
<td>8000</td>
</tr>
<tr>
<td>F</td>
<td>Yes</td>
<td>Yes</td>
<td>Director</td>
<td>over 40 years</td>
<td>1-10 years</td>
<td>1200</td>
</tr>
</tbody>
</table>

Figure 4-2  Answers to interview question No. B-1

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Question No.B-1:  What are the advantages attributing to greater OEM involvement?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Can focus on manufacturing, shorter development cycle, less trouble with staffing and overheads, better business hit rate.</td>
</tr>
<tr>
<td>B</td>
<td>Faster cashflow payback, more concrete buyer commitment, low entrance barrier, less inventory and staffing trouble.</td>
</tr>
<tr>
<td>C</td>
<td>Save R&amp;D and advertising costs, better chance for design acceptance, more stable customers.</td>
</tr>
<tr>
<td>D</td>
<td>Easier entrance, just follow buyer's design to produce, less staffing hassle in recruiting designers and engineers.</td>
</tr>
<tr>
<td>E</td>
<td>Just follow the buyer's design, no need to worry about the market.</td>
</tr>
<tr>
<td>F</td>
<td>Focus on manufacturing, lower risk and less R&amp;D investment, feelings of more stable operation, keener pricing for bigger orders with possible mass production efficiency and costs.</td>
</tr>
</tbody>
</table>
**Figure 4-3 Answers to interview question No. B-2**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>More autonomous control of costs and resources rather than being driven by customers’ designs. ODM design service ties customers to manufacturer. Enhances manufacturer's design ability and marketing skills and leads to OBM development.</td>
</tr>
<tr>
<td>B</td>
<td>ODM enhances manufacturer’s competitiveness. Easier to sell services to customers.</td>
</tr>
<tr>
<td>C</td>
<td>ODM enables OBM development which yields better margins. Factory investment can be shared with customers, unlike OEM (different customer, different project) where customers are reluctant to pay any additional costs.</td>
</tr>
<tr>
<td>D</td>
<td>ODM distinguishes OEM with design know-how, which allows a manufacturer to design for and service multiple customers.</td>
</tr>
<tr>
<td>E</td>
<td>ODM self-design capability is an added value service which provides a competitive advantage to obtain more orders.</td>
</tr>
<tr>
<td>F</td>
<td>ODM enables design and engineering deployment to: (a) tailor a manufacturer's resources and strength; (b) facilitate operational flexibility; and (c) improve efficiency. Though ODM design is subject to market acceptance, ODM can forecast product trends better than OEM which that may require significant changes to adapt customer’s requirement.</td>
</tr>
</tbody>
</table>
### Figure 4-4  Answers to interview question No. B-3

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The survival of manufacturers is challenged by: (a) competitiveness in the industry; (b) keen competition from Mainland China factories; (c) cost increases; (d) thin margins; (e) tight cashflow; (f) the threat of product failure; (g) late shipment penalties; and (h) defective claim challenges.</td>
</tr>
<tr>
<td>B</td>
<td>OEM has a lower entrance barrier than ODM but, competing solely on price is a dead end with, little room to turn. Low-tech manufacturing lacks competitiveness.</td>
</tr>
<tr>
<td>C</td>
<td>The Toy Industry lacks innovation and has thin profitability but keen competition.</td>
</tr>
<tr>
<td>D</td>
<td>Government does not provide sufficient support to ODM. The taxation policy does not support investment in tooling/equipment/machinery. The education system and testing laboratories are not adequate for the toy industry. There are problems of expertise succession because of the lack of skilled personnel.</td>
</tr>
<tr>
<td>E</td>
<td>Compared with ODM, OEM faces the problem of keener competition from Mainland China, Vietnam, Indonesia and other Asian countries.</td>
</tr>
<tr>
<td>F</td>
<td>There are limitations to the creativity of toy manufacturers in Hong Kong and China. Foreign marketers understand their markets better than Hong Kong manufacturers and do not expect much from Hong Kong designers. Business negotiation between U.S. marketers and retailers is easier than with Hong Kong manufacturers.</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Answers</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
</tr>
<tr>
<td>A</td>
<td>China government open policy (subsidizing factories, VAT rebate) attracts foreign investment to set up factories. However, policy changes, e.g. VAT rebate reductions, cause factories to shoulder the difference.</td>
</tr>
<tr>
<td>B</td>
<td>China’s tightening political and legal policies affect toy manufacturers, namely: (a) minimum wage increases every year; (b) increased labour welfare; and (c) transfer of social responsibilities, from government and SOEs to the toy manufacturers. Toy manufacturers are not able to shed these responsibilities and this acts as a barrier to exit OEM.</td>
</tr>
<tr>
<td>C</td>
<td>Intellectual property protection provided by the Chinese government is insufficient and entails difficult legal recourse. Also, different factory certifications are required from government and industry associations.</td>
</tr>
<tr>
<td>D</td>
<td>Government policy affects manufacturers' costs directly, restricting toy industry competitiveness even though Hong Kong is a free port, in particular China’s labour laws, rules and compliance that discourage toy industry development. ODM manufacturers have to bear the responsibility of design risk. Government support is inadequate and lacks incentives to toy manufacturers to invest in equipment/machinery/tooling (e.g. tax reductions).</td>
</tr>
<tr>
<td>E</td>
<td>Although the stable political environment favours toy manufacturers, government policy, the legal system and institutional compliance are added costs.</td>
</tr>
<tr>
<td>F</td>
<td>Government rules and compliance increase every year, e.g. China labour contract laws, rules for VAT rebate reduction and factory certification. Some customers (not all) selectively require this level of compliance, reflecting unfair double standards. Manufacturers aim to increase profitability due to cost increases, risk and uncertainty, but this rarely happens as buyers keep demanding lower price because of inflation.</td>
</tr>
</tbody>
</table>
**Figure 4-6 Economic Dimension - Answers to interview question No. B-4b**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>China’s open policy with abundant low cost labour has provided a low cost production advantage, enabling factories to concentrate on labour-intensive mass production, without the need to invest in design and technical areas. Low cost RMB favours production. In spite of competition from other Asian countries, Mainland China still has the advantage of an industrial history and support systems, while competitive countries have greater uncertainty.</td>
</tr>
<tr>
<td>B</td>
<td>RMB appreciation affects the toy industry. There are costly government expenses and overheads to toy businesses which operate on thin profit margins. It is understood that China wished to develop domestic markets to reduce reliance on exports.</td>
</tr>
<tr>
<td>C</td>
<td>Financing for ODM is easier than OEM because of intellectual property potential. Currency fluctuations result in thinner profits, with the result that manufacturers prefer OEM because it has a faster payback and, avoids risks of long-term project engagement (over one year).</td>
</tr>
<tr>
<td>D</td>
<td>Investing in ODM is more costly than OEM because of R&amp;D, staffing and overheads. Currency fluctuations affect imported tools and equipment.</td>
</tr>
<tr>
<td>E</td>
<td>RMB appreciation affects the toy industry. China’s labour-intensive production and living standard improvements cause manufacturing cost increases.</td>
</tr>
<tr>
<td>F</td>
<td>RMB appreciation affects the toy industry in terms of its labour and material costs. An uncertain economy (e.g. Europe or the Middle East) affects the demand for toys.</td>
</tr>
</tbody>
</table>
### Question No. B-4c: How does the Socio-cultural dimension affect the toy industry with more OEM than ODM?

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The traditional Chinese hardworking culture facilitates toy manufacturers to get things done on time. The synergy of Hong Kong management (higher integrity) and Mainland China production (efficiency) promote overseas buyers to trade with Hong Kong toy companies.</td>
</tr>
<tr>
<td>B</td>
<td>In the growing demand for higher living standards and follow-up education, there are fewer traditional “big families”. The one-child policy causes labour shortages and the available younger generation prefers the service industry to blue-collar factory jobs.</td>
</tr>
<tr>
<td>C</td>
<td>Mainland China culture has a low respect for intellectual property. The threat of copying and counterfeiting is high. In addition, China’s culture is unlike the U.S. which affords failure and supports innovation and creativity. The U.S. university education system and Silicon Valley are remarkable examples that are in contrast to Chinese deficiencies in creativity and supporting culture.</td>
</tr>
<tr>
<td>D</td>
<td>The younger generation in China has a different value system and culture, quite unlike the old culture of earning money sending it back home to support one’s family. They spend money right away, and prefer short-term careers or small shop businesses. China’s diversified education attracts fewer participants to the manufacturing industry, causing problems of succession to next generation. The one-child population policy affects the manufacturing workforce supply.</td>
</tr>
<tr>
<td>E</td>
<td>Traditional Chinese “big family” culture influences people to work hard. But the one-child policy leads to workforce shortages and influences the short-supply workforce to become less hardworking, causing manufacturing cost increase.</td>
</tr>
<tr>
<td>F</td>
<td>Regional culture affects customers’ expectations. European long summer holidays result in slow communication with Chinese manufacturers on project and business development. The Chinese perceive “priority” and “importance” differently from the West. The Chinese respond to emails faster than European, due to the culture of continual working and production. In the areas of product design and customer expectation, the West has style and “know-how” which is different from the Chinese.</td>
</tr>
</tbody>
</table>
Question No. B-4d: How does the Technological dimension affect the toy industry with more OEM than ODM?

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The technological training in Hong Kong and Mainland China is aligned more towards manufacturing, with less demand for design and innovation.</td>
</tr>
<tr>
<td>B</td>
<td>China’s open policy promotes technology development, improves education, and more channels (internet, social media, technology) are available for the younger generation to learn new topics aggressively.</td>
</tr>
<tr>
<td>C</td>
<td>China is weak in hi-tech and innovation and it is difficult to inspire creative ideas like the U.S. and its university environment. U.S. innovation can be seen from people using smart phones with software 'apps' to program toys, and industry innovation of more sturdy materials.</td>
</tr>
<tr>
<td>D</td>
<td>ODM requires more and better technical requirements. China is evolving from a manual to a more computerized technology but is weak in upholding intellectual property protection, causing ODM development to be unprotected. The toy industry involves more OEM because customers take responsibility for design, not manufacturers.</td>
</tr>
<tr>
<td>E</td>
<td>The traditional Toy Industry is affected by the popularity of the internet, smart phones and on-line games, to the extent that even small children of three years play with hi-tech toys. China has acceptable and very popular internet accessibility, except for certain political restrictions. The Toy Industry receives technology and innovation support mostly from the private or customer side, not from government.</td>
</tr>
<tr>
<td>F</td>
<td>Hong Kong and Mainland China technology and innovation investment is too theory-oriented and lacks practicality. The Hong Kong government establishments (e.g. the Science Park) cannot solve immediate problems with innovation. Overseas technology and product development is faster than in China, namely: smart phone games and hi-tech toy robot developed in Japan and U.S. form some years, but just starting in China.</td>
</tr>
</tbody>
</table>
**Figure 4-9 Strategic Dimension - Answers to interview question No. B-4e**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>Hong Kong toy manufacturers are weak in overseas marketing and market penetration. China manufacturing’s weak risk-taking mindset minimises innovation investment. Manufacturers lack money to invest in innovation and to afford risk. Government support to ODM and OBM is weak compared with South Korea and Japan which provide monetary and government strategic support.</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>Cost competitiveness is crucial. China has the advantageous of efficient and effective manufacturing and relocating to other Asian countries is not easy, particularly when one evaluates the supply chain and other supports. Cambodia can only be considered for simple product manufacturing. However, China must improve its intellectual property protection because of the threat of copying ideas and products. The response to complaints in China is less than satisfactory, except for case at national level. Hong Kong has better copyright protection than China.</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>There is concern for intellectual property protection in China, in particular, licensing (e.g. Disney), patent filing and notification to buyers of counterfeit goods in the market. ODM and tooling investment by a manufacturer can limit the intellectual property to avoid problems. ODM takes a medium to long-term vision while OEM is more short-term.</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>Buyers’ strong bargaining power disallows price increases, as they demand lower prices in spite of manufacturing cost increases (due to factory audit, compliance, safety, material cost, quality assurance and control) and decreases in profitability. ODM design has the uncertainty of customer acceptance leading to purchase orders. OEM is more certain, as customers approach manufacturers for project discussions and there is a higher chance to materialize business.</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>The cited Porter Five Force model depicts barriers in the toy industry, where strong customer bargaining power leads to OEM securing business better than ODM, even though OEM has keen competition on price and production capacity. The old belief of large production capacity is no longer superior to others. Toy manufacturers should find more customers and attract them by promotion, because OEM manufacturers have more difficulty in attract customers than ODM manufacturers.</td>
</tr>
</tbody>
</table>
Chinese toy manufacturers are restricted to operational involvement in manufacturing, costing and engineering and find it difficult to participate in customer marketing, particularly at the customer's core conceptual level. So many ODM manufacturers copy or reference foreign branded products because they find it difficult to understand the overseas market sufficiently. Successful ODM manufacturers in overseas markets are few in number, effectively weak OBM which has a better profit margin, so that customer private brand production (OEM) becomes dominant.
**Figure 4-10  Answers to interview question No. B-5**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Agreed. Modifying existing products is a norm, as Hong Kong toy manufacturers lack competence in marketing, products, niches and new technology. These inadequacies, with the different nature of toys, are related to sales performance which is cyclic. Toys which are more hi-tech appear more risky than modifying existing products. Traditional toys for the six to nine age group have a more stable market while other age groups are affected by electronics or hi-tech on-line games. This is about how much innovation can be directed to small children, and how marketing and technology apply to them. Toy safety requirements limit toys design. The Chinese government promotes domestic sales but Hong Kong companies have difficulty in competing with Mainland Chinese firms, so they rely on marketing and purchase orders from overseas.</td>
</tr>
<tr>
<td>B</td>
<td>OEM produces toys according to a customer’s design with no worry about modifying existing products. This is not a problem because such products are good selling items in the market. ODM design has customer acceptance uncertainty, even if Hong Kong and China have the design resources.</td>
</tr>
<tr>
<td>C</td>
<td>Agreed. The norm is modification of existing products, as Hong Kong is weak in exploiting external knowledge to enhance innovation ability. However, innovative ideas may be used in commercialization (marketing), not just for product development. Converting knowledge to monetary results is also innovation.</td>
</tr>
<tr>
<td>D</td>
<td>Agreed. The “me too” norm of modification from existing products exists. There are different regional ideas, tastes and cultures, e.g. Chinese like something which the West may dislike. OEM design is from customers who know their culture and taste, unlike ODM design that has customer acceptance uncertainty.</td>
</tr>
<tr>
<td>E</td>
<td>OEM manufacturers focus on efficiency and profitability improvement through machinery and production facility upgrades that lack relevance to innovation. Successful innovation resembles a good brand which enhances a manufacturer. Manufacturers benefit from customers if customers are the source of innovation. Customers can freely select the manufacturers in spite of ODM manufacturers producing similar products with different extents of modification or innovation. Such innovative ODM manufacturing can often lead to success.</td>
</tr>
</tbody>
</table>
Agreed. This refers to the “me too” norm of modifying, copying or referencing existing products in the market. It is found in U.S. retailers (e.g. Target Stores) where some toys are more or less the same as those of ten years ago. Some manufacturers do not follow this type of "me too" product as lacking of beneficial prospects. Hong Kong institutions, e.g. the Science Park, are weaker than foreign big companies (e.g. Google) in convincing people to believe the trend of the next five years.
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Toy manufacturing is facing the problem of losing its competitive edge that is affected by: (a) China’s labour shortage (as result of the one-child policy, social change and fewer people engaging in toy manufacturing); (b) Mainland China’s policy and stringent labour regulations adding costs; (c) various compliance costs; (d) thin profit margins; (e) manufacturers’ mindset of risk avoidance; and (f) lack of government support. This influences production capacity and leads SMEs to consider changing into different business fields. Price wars eliminate weak factories, but all will be hurt in the long run. There is always a cheaper offer in the market. Stakeholders are the government and SMEs. The prospects of the toy industry are determined by the world markets, in particular, whether they accept price increases.</td>
</tr>
<tr>
<td>B</td>
<td>The toy industry is facing the problem of survival, as one often hears of toy manufacturers going out of business. Stakeholders are employers, employees, designers, engineers and merchandisers.</td>
</tr>
<tr>
<td>C</td>
<td>The toy industry lacks innovation. OEM has its reason to exist, but its thin margins restrict future prospects. It is a vicious cycle of low profitability OEM that lacks money to invest in innovation. Stakeholders are owners, designers and creative idea sources.</td>
</tr>
<tr>
<td>D</td>
<td>Barriers to toy industry innovation development exist because of too much reliance on overseas customers’ market needs and information. Stakeholders are suppliers, customers and government. Barriers and costs to the toy industry include: (a) keen price competition; (b) external economic environment affecting sales; and (c) increased manufacturing and toy safety requirements. Customers’ private brands (e.g. Disney, Hello Kitty) have greater bargaining power than Hong Kong brands in overseas markets. China’s domestic market has also 3C compliance.</td>
</tr>
<tr>
<td>E</td>
<td>The toy market is shrinking. Exports are the mainstream of the toy industry, but are affected by factors in importing countries, e.g. the economy, trends, tastes and customers’ acceptance. ODM manufacturers have difficult in inspiring creativity and ideas compared with large overseas companies e.g. Disney. China’s toys exports are reduced and affected by competition from hi-tech smart phones and on-line games. The current level of innovation in the Hong Kong toy industry is not sufficient. Stakeholders are customers, employees, employers, government and all parties involved in the supply chain.</td>
</tr>
<tr>
<td>F</td>
<td>Private brand dominance indicates that toy manufacturers should improve their design and R&amp;D ability. Radical creativity, design and culture are weak in Chinese toy manufacturers. There are public relation agencies with knowledge of overseas markets which can help toy manufacturers. Techniques of design and marketing to determine a design acceptable to overseas customers include: (a) toy product differentiation; (b) finding gaps or niches; and (c) exploring opportunities between private brands and manufacturers’ brands.</td>
</tr>
</tbody>
</table>
### Figure 4-12 Answers to interview question No. B-7

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>I have already discussed the factors and difficulties of ODM.</td>
</tr>
<tr>
<td>B</td>
<td>ODM is lacking innovation and is problematic. Some Hong Kong toy companies use designers in the U.S. because customers are there. Although Hong Kong has some engineering support, idea inspiration is still from overseas. Hong Kong designers have difficulty in understanding and representing overseas customers and their market tastes.</td>
</tr>
<tr>
<td>C</td>
<td>The Hong Kong toy industry lacks government resources and support unlike South Korea, Singapore, Taiwan and U.S. where governments provide more resources on a larger scale. The reaction of the Hong Kong government is passive. Education in toy industry related field is minimal in contrast to the high profile effort in the financial and property markets. The Chinese government emphasizes innovation but at a very superficial level, and more attention is paid to the booming property market.</td>
</tr>
<tr>
<td>D</td>
<td>The Hong Kong government promotes itself as a financial centre, and provides little incentive for the toy industry to participate in education (universities or institutes).</td>
</tr>
<tr>
<td>E</td>
<td>The Hong Kong government’s support to the toy industry is insufficient and slow to respond. Investing in innovation is not easy because of market risk and the uncertainty of success. It is difficult to find the right personnel for ODM and design development, leading to inadequate packaging and product design. Investment in innovation and design from Hong Kong and China is on a comparatively smaller scale than overseas. As a result, China has difficulty in handling large scale hi-tech projects.</td>
</tr>
<tr>
<td>F</td>
<td>The supply of good industrial designers is inadequate. Where designers are available, the larger firms hire them faster than SMEs. Hong Kong lacks an adequate training platform (education) for designers. Hong Kong’s desire to improve the quality of design (style and taste) requires the adoption of Chinese or Western culture, which is eventually a commercial decision. Hong Kong institutions (e.g. the Science Park, Information and Technology Commission) are unable to contribute meaningfully to the toy industry. They contribute little and are misaligned.</td>
</tr>
</tbody>
</table>
## Question No. B-8: To ODM manufacturers, how it works? What are the investments? What are the advantages? How problems can be overcome in ODM implementation?

## Question No. B-9: To non-ODM manufacturers, what is the recommendation to Hong Kong toy manufacturers to implement ODM?

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>As there are very few graduates available in Hong Kong within the manufacturing profession, one hires fresh graduates from Mainland China then trains them from scratch. To overcome problems, toy manufacturers: (a) co-operate and explore ideas with customers; (b) set up R&amp;D Departments; (c) conduct product research; (d) attend trade fairs; and (e) send staff overseas to learn foreign markets and to enrich R&amp;D and marketing.</td>
</tr>
<tr>
<td>B</td>
<td>Competition in the Hong Kong toy industry is keen. The Hong Kong government should lead innovation and technology development through education and training. Hong Kong does not have a formal academic degree in toy design, while overseas have such degrees. People without university qualifications can design products, and whether university education can produce graduates able to design quality toys is another question.</td>
</tr>
<tr>
<td>C</td>
<td>Internal and external outsourcing design teams can help ODM deployment, but safeguards are needed, including (a) investing in test equipment; and (b) acquiring expertise and licences. Good designers are important. The long lead times of three to eight years for filing patent application in the U.S. and Europe taking is difficult for toy manufacturers, as toys generally have short lives which seldom last that long. What is needed is simpler requirements, shorten lead times and faster registration of patents. The Hong Kong short-term patent offers faster and less complicated procedures with promotion and marketing advantages which can deter competitors in short term.</td>
</tr>
<tr>
<td>D</td>
<td>ODM reacts to a customer's brief, desire or idea. Manufacturers then design, develop and engineer the physical product. With OEM customers buy on price and have low loyalty to their factories which they can change easily. ODM can apply patent protection to defray investment accordingly. Once ODM succeeds in good brand production like Disney, there will be fruitful business.</td>
</tr>
<tr>
<td>E</td>
<td>ODM involves designers in product and packaging design, then tooling, machinery, advertising and promotion. Obtaining finance for ODM manufacturing is not easy because of the lack of security and innovation uncertainty.</td>
</tr>
<tr>
<td>F</td>
<td>Overseas customers want good quality products so investment in design and marketing is required. Quality and investment are challenging toy manufacturers. Finance and resources permitting, sending people overseas for training is helpful. The traditional Chinese way of working alone (being less reliant on working with others) is no longer practical. Manufacturers have to work with partners (overseas customers) and build a relationship. People and agencies are the key to good marketing. ODM investment enhances a manufacturer's capability and flexibility.</td>
</tr>
</tbody>
</table>
### Figure 4-14  Answers to interview question No. C-1

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>Transaction costs exist in ODM, and these added costs are different from OEM, namely, research, marketing, application of technology, safety assurances, overheads, indirect costs with staffing, quality engineering and assurance, price negotiation and sourcing.</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>The transaction cost concept is important as there are compliance costs in ICTI factory audits and product safety testing. They may constitute very substantial costs and discourage innovation and ODM development.</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>Transaction costs exist early in 'before cost' (ex-ante) investments in design, tooling, plastic resins, metal parts, integrated circuits, other component parts, and also the legal cost in safeguarding designs, trademarks and patents. ODM incurs marketing costs while OEM does not (customer responsibility).</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>ODM has higher transaction costs than OEM, because of the substantial investment in design.</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>ODM has higher transaction costs than OEM because OEM just makes “to order”. ODM requires more promotion and stock control. ODM involves manufacturers’ own designs and skills in production, and minimum quantity requirements often require an inventory of packaging and materials. ODM has more compliance costs than OEM, because OEM customers usually take care of designs and testing.</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>ODM has more transaction costs than OEM. OEM works on customers’ designs and specifications, and the decision to proceed with a project is a simple ‘yes or no’. The market and customers provide feedback on the product’s outcome. ODM has more risks than OEM because of uncertainty that the product will warrant satisfactory sales and guaranteed ROI.</td>
</tr>
</tbody>
</table>