Analysing the Changing Trajectory of South Korea’s ICT Business Environment

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Thesis presented for the award of Doctor of Philosophy

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Declaration

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Abstract

This thesis aims to provide a new perspective on the development of South Korea’s Information and Communications Technologies (ICT) Business Environment by taking a cross-disciplinary look at the area. Most studies on this subject have tended to remain within the boundaries of a single discipline. In this study, an interdisciplinary approach is taken to trace more of the paths that have influenced the development. This will provide a better understanding of the area and this insight should make it easier for any prospective organisation hoping to enter the Korean market to be successful. In little over two generations, South Korea has transformed from being one of the poorest countries in the world into a global business leader. Currently, Information Technology products are at the forefront of exports from the country and the world’s largest electronics company hails from a city just south of Seoul.

In order to understand how this transition took place and how some of these small infant startups became international giants, this study begins with a look at Korean history with the focus on early interactions with foreign cultures. The information provides a foundation for understanding why certain decisions were taken when Korea began its post-war journey towards industrialisation in the 1960s.

Then, using these details, Korea’s modern ICT Business environment is analysed using case studies to show how the strategies taken earlier have evolved but not disappeared. In today’s world of free trade agreements and international bodies aiming to remove barriers, the rules governing business and the role of government have morphed into a more complex but subtle framework. This thesis shows how ICT companies who can operate within this changing framework can use the situation to their advantage, providing a springboard to international business success. The conclusions from this study will provide an insight into the approaches taken in South Korea to nurture innovation in enterprises and track the paths that these companies took.
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<td>ADSL</td>
<td>Asymmetric digital subscriber line.</td>
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<td>AMPS</td>
<td>Advanced Mobile Phone System.</td>
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<td>ARM</td>
<td>Advanced RISC Machines.</td>
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<td>ARPA</td>
<td>Advanced Research Projects Agency.</td>
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<td>ARPANET</td>
<td>Advanced Research Projects Agency Network.</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations.</td>
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<tr>
<td>AT&amp;T</td>
<td>American Telephone and Telegraph Company.</td>
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<tr>
<td>BBC</td>
<td>British Broadcasting Corporation.</td>
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<td>BCE</td>
<td>Before the Common Era.</td>
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<td>BREW</td>
<td>Binary Run-time Environment for Wireless.</td>
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<tr>
<td>BSE</td>
<td>Bovine spongiform encephalopathy.</td>
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<td>CASS</td>
<td>Chinese Academy of Social Science.</td>
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<td>CCTV</td>
<td>Closed Circuit TV.</td>
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<td>CDMA</td>
<td>Code Division Multiple Access.</td>
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<td>CEO</td>
<td>Chief Executive Officer.</td>
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<td>CIO</td>
<td>Chief Information Officer.</td>
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<td>CNN</td>
<td>Cable News Network.</td>
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<td>CTO</td>
<td>Chief Technical Officer.</td>
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<tr>
<td>DACOM</td>
<td>Data Communication Corporation of Korea.</td>
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<tr>
<td>DDOS</td>
<td>Distributed Denial of Service.</td>
</tr>
<tr>
<td>DM</td>
<td>Designated Manufacturer.</td>
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<tr>
<td>DMB</td>
<td>Digital Multimedia Broadcasting.</td>
</tr>
<tr>
<td>DMZ</td>
<td>Demilitarised Zone.</td>
</tr>
<tr>
<td>DNA</td>
<td>Deoxyribonucleic Acid.</td>
</tr>
<tr>
<td>DOD</td>
<td>U.S Department of Defense.</td>
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<tr>
<td>EFTA</td>
<td>European Free Trade Association.</td>
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<td>ERTI</td>
<td>Korean Electronics and Telecommunications Research Institute.</td>
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<td>ETSI</td>
<td>European Telecommunications Standards Institute.</td>
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<td>EU</td>
<td>European Union.</td>
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<tr>
<td>FAQ</td>
<td>Frequently Asked Questions.</td>
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<td>FFS</td>
<td>Korean Financial Supervisory Service.</td>
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FIFA – Fédération Internationale de Football Association.
FTA – Free Trade Agreement.
GATT – General Agreement on Tariffs and Trade
GCC – Gulf Cooperation Council.
GDP – Gross National Product.
GHz – Gigahertz
GNP – Gross national product (GNP).
GPS – Global Positioning System
GSM – Global System for Mobile Communication.
HDI – Human Development Index.
HDTV – High Definition TV.
HTC – High Tech Computer Corporation
HWP – Hangul Word Program.
IBM – International Business Machines Corporation.
ICT – Information and Communications Technology.
IDC – International Data Corporation.
IDI – ICT Development Index.
IETF – Internet Engineering Task Force.
IMF – International Monetary Fund.
IT – Information Technology.
ITU – International Telecommunications Union.
KAIST – Korea Advanced Institute of Science and Technology.
KBPS – Kilobit per second.
KCC – Korea Communications Commission.
KCIA – Korean Central Intelligence Agency.
KEPCO – Korea Electric Power Cooperation.
KFTC – Korea Fair Trade Commission.
KISA – Korea Internet and Security Agency.
KISDI – Korea Information Society Development Institute.
KMT – Korea Mobile Telecom.
KORUS – South Korea – USA FTA.
KOTRA – Korea Trade and Investment Promotion Agency.
KOVA – Korea Venture Business Area.
KPA – Korean People’s Army.
KT – Korea Telecom.
KTA – Korea Telecommunications Authority.
KTCI – Korea Financial Telecommunications and Clearings Institute.
KTX – Korea Train eXpress.
KWISF – Korea Wireless Internet Standardisation Forum.
KVA – Korean Volunteer Army.
LAN – Local Area Network.
LCD – Liquid Crystal Display.
LG – Lucky Goldstar.
LTE – Long Term Evolution.
MBC – Munhwa Broadcasting Corporation.
MDC – More Developed Country.
MIC – Korean Ministry of Information and Communication.
MIDP – Mobile Information Device Profile.
MKE – Korean Ministry of Knowledge Economy.
MMS – Multimedia Messaging Services.
MOC – Korean Ministry of Communications.
MOE – Korean Ministry of Education.
MOFAT – Korean Ministry of Foreign Affairs and Trade.
MOIC – Ministry of Information and Communication of Korea.
MOU – Memorandum of Understanding.
MS – Microsoft Corporation.
MS DOS - Microsoft Disk Operating System.
mtDNA – Mitochondrial DNA.
NGO – Non-Governmental Organisation.
NIDA – National Internet Development Agency of Korea.
NPKI – Nested Certificate Based Public Key Infrastructure.
NSF – National Science Foundation of France.
OECD – Organisation for Economic Cooperation and Development.
OPEC – Organization of the Petroleum Exporting Countries.
PC – Personal Computer.
PCS – Personal Communications Service.
PDA – Personal Digital Assistant.
PDF – Portable Document Format.
PISA – Program for International Student Assessment.
PVA – People’s Volunteer Army.
RIM – Research in Motion.
ROK – Republic of Korea.
RRN – Resident Registration Number.
SDS – Scientific Data Systems.
SMS – Short Messaging Services.
SOFA – Status Of Forces Agreement.
SSL – Security Socket Layer.
TBT – Technical Barriers to Trade.
TDX – Time Division Exchange.
TGV – Train à Grande Vitesse.
TTA – Telecommunications Technology Association of Korea.
UUCP – Unix to Unix Copy Program.
UCLA – University of California, Los Angeles.
UK – United Kingdom.
UN – United Nations.
UNC – University of North Carolina.
UNDP – United Nations Development Programme.
USB – Universal Serial Bus.
US – United States.
USFK – U.S Forces Korea.
USSR – Union of Soviet Socialist Republics.
USTR – Office of the United States Trade Representative.
VM – Virtual Machine.
W-CDMA – Wideband code division multiple access.
WIPI – Wireless Internet Platform for Interoperability.
WTO – World Trade Organisation.
WWII – World War II.
Chapter 1

Introduction to the research
Chapter 1: Introduction to the research

1.1 Introduction

Information and communication technologies (ICT) have become just as important in modern life as electricity and water. In business and the public sector, ICT has been used to reduce costs, streamline processes, generate innovation and boost productivity. Studies on the impact of ICT have become an interdisciplinary area because it makes both a direct and indirect contribution to economic growth. For example, communication systems indirectly influence economic growth by making it possible to distribute information quickly, market new products and encourage the adoption of emerging innovations. Information technology has now become intrinsically embedded in most business models, and its importance is continually growing because Internet connectivity is becoming omnipresent in most people’s lives due to convergent devices like smartphones. Therefore, the study of ICT trends from an interdisciplinary perspective is an area that may hold the key to determining the economic direction of both countries and business organisations going forward.

The aim of this research is to provide a new perspective on South Korea’s ICT business trajectory by linking the past to the present. The focus of this study was to trace the path of Korea’s early international experiences and explore how these formative interactions still resonate today even in high-technology business areas. This will provide a better understanding of the subject and this insight should make it easier for any prospective organisation hoping to enter the Korean market to be successful. South Korea is an ideal country to look at in terms of rapid economic development and more specifically ICT business development. In little more than five decades the country has transformed from a poor, war-torn nation into one of the world’s most advanced countries at the forefront of technology adoption and development.

As one of the most industrialised and economically advanced countries in Asia, South Korea is obviously a key nation to consider when conducting studies on ICT Business from a Global perspective. Korea’s economic success is even more impressive when
placed in the context of how quickly it was achieved. During the Korean War in the early 1950s, four million people were killed in a bloody three-year conflict. This decimated the country and many businesses had to start up again from scratch. For example, more than 75% of the railway lines in the country were destroyed in the fighting, along with half of the country’s factories. In the aftermath of the war, the region was an impoverished war-torn area, where people were struggling for survival. For example, in 1961 South Korea’s yearly income per person was US$82, less than half of Ghana’s yearly income in the same year (Huntington, 1996).

A quick look at today’s South Korea paints a very different picture. The majority of the economic analysis organisations now place the country firmly in the group of Developed or More Developed Countries (MDCs). One indicator that is used to compare the progress of countries is the United Nation’s Human Development Index (HDI). According to the UN (2013), this indicator measures how income is channeled into education and health opportunities, thereby enabling higher human development levels. On this list, South Korea was ranked in 12th place just behind Canada and Japan but ahead of Hong Kong, Iceland and Denmark. Furthermore, South Korea is included on the list of the thirty-five most advanced economies in the world based on the IMF’s classification system (2013). This is supported by data from the OECD (2013), which classifies South Korea as a high-income country. Japan and Korea and are currently the only Asian countries that feature on the list.

It is clear from the above information that South Korea has transitioned from one of the poorest countries in the world to one of the richest in little over a single generation. Because of the rapid change, analysts used the expression ‘Miracle on the Han’ when referring to Korea’s economy\(^1\). This expression was adapted from the ‘Miracle on the Rhine’ description used to discuss West Germany’s economic progress after World War II (Henderson, 2008 p15).

Many economists and analysts rushed to try to figure out how South Korea managed to achieve so much in such a short time. Initially, some economists tried to attribute

\(^1\) The Han River is the waterway that runs east to west through central Seoul.
Korea’s success to neo-liberal, free-market practices including keeping inflation low, encouraging free trade, promoting foreign investment, minimising government involvement in business and allowing private enterprise to drive growth (World Bank, 1993, 91). However, this view was later challenged by other economists, who claimed that what actually happened in South Korea was that the Government and a small number of business leaders worked together to select, protect and nurture new industries. They did this by imposing punitive tariffs and other import barriers on competing international products while subsidising manufacturing and encouraging exports. One of the more prominent economists putting forward this modified view of South Korea’s development process is Chang (2000, 2007). In his books ‘*Kicking Away The Ladder*’ and ‘*Bad Samaritans*’ (2000, 2007), Chang argued that the approaches that Korea took in the second half of the twentieth century were similar in many ways to those taken by the British Empire and the U.S.A centuries earlier when they were developing. These policies were based on semi-protectionism and those same countries now use the IMF, World Bank and United Nations to ‘*kick away the ladder*’ to development for poorer nations by forcing them to open up to foreign imports too early, effectively killing small local businesses who cannot compete with the global giants.

The argument put forth by Chang (2002, 2008) is that in Korea, the net effect of a protectionist approach was that certain businesses operated in a safe cocoon until they were strong enough to both export their products internationally and compete effectively with imports inside their domestic market. Chang also suggested that South Korea’s emergence as a high-income economy means that the country is now in a position to open up and allow free trade with a number of regions because it now stands to benefit from open access to these markets without threatening their domestic economy. The number of free trade area agreements signed or in negotiations supports this viewpoint (MOFAT, 2013)².

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² FTAs in effect: Korea-Chile (Since 2004), Korea-Singapore (Since 2006), Korea EFTA (European Free Trade Association) (Since 2006), Korea Asean (Association of South East Asian Nations) (Since 2009), Korea-India (Since 2010), Korea-EU (Since 2011), Korea-Peru (Since 2011), Korea-USA (Since 2012).

FTAs agreed but awaiting implementation: Korea-Turkey, Korea-Columbia.
However, in parallel with the removal of tariff-based trade barriers, countries seeking to protect their domestic businesses, have erected new types of trade barriers. Some common examples of these are shown below (Yu, 2000):

- **License barriers:** In this system, a government stipulates that a permit is needed for foreign trade transactions of certain commodities. This can introduce difficult procedures and requirements that effectively restrict or even block the import of certain goods if that is a desired outcome.

- **Quotas:** This involves setting a quantitative restriction on the import of certain goods. This can be based on the value or volume of the imports. It can be used to stop companies from getting a solid foothold in a country because they cannot meet the demand or supply enough product to establish their brand in the marketplace.

- **Standards:** Some countries create a standard that goods must reach in order to be eligible for importation. These can include classification, labeling, testing or quality standards. The standards can be very rigorous and can result in the complete or partial blocking of a product or service.

- **Administrative or bureaucratic delays:** Timing is very important in business. If the importation of products can be delayed, it can give local companies enough time to reverse-engineer the product, mass produce it and undercut the importer. This is another technique that is sometimes used by countries to protect domestic producers.

In ICT and technology-related industries, non-tariff trade barriers can be especially punitive and effective because they can be hugely complex. When a licensing or standard barrier is erected using a very detailed technical explanation, it can become extremely difficult to navigate through the details in order to comply or object with it. In addition, ICT business and products change very fast so barriers can sometimes quickly come and go before attention can even be drawn to their existence.

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FTAs under negotiation: Korea-Canada, Korea-Mexico, Korea-GCC (Gulf Cooperation Council), Korea-Australia, Korea-New Zealand.
Given their export-orientation, Korean companies trying to sell their products abroad now have to try and navigate their way through non-tariff trade barriers. According to the Korea Times (2013), the Korean Government opened an office in September 2013 specifically to deal with the barriers being raised by other countries. They explained that 30% of Korean small–medium enterprises exporting to Japan and almost 17% of companies trying to do business in China have been affected by non-tariff trade barriers in those countries. In addition, the World Trade Organisation (WTO) announced that technical barriers to trade have been rapidly increasing globally in recent years and they now pose a serious problem for international business. This suggests a shift towards the use of these types of barriers as an additional or alternative trade control mechanism.

1.2 Objectives, Questions and Themes

The objective of this thesis is to provide a new perspective on the development of the ICT sector in Korea by using an interdisciplinary approach to analyse the trajectory the area has taken beginning with its historical roots. Using Korea as the focus of the study is an ideal choice because the country is a global ICT leader and technology constitutes a substantial part of the country’s economic activity. Other countries, such as China, India and Brazil, now look to Korea as an early adoption country in the field, so it is likely that they will follow in the country’s footsteps.

Two main research questions will be addressed in this thesis:

1. Can South Korea’s rise as an ICT-based economy be attributed to a free-market policy or to a government-controlled, protectionist policy and to what extent can these policies be attributed to path-dependent events in Korean history and the country’s social structure?
2. Can case studies provide practical examples that show tariff-based trade barriers are now sometimes replaced by Technical Barriers to Trade in the ICT Industry to protect domestic businesses in South Korea?

The theme of this study is how FTAs and globalisation through FTAs is influencing and affecting the fast moving ICT business in Korea. By factoring in historical and social considerations, some associations between different factors can be inferred. This may provide clues about what is likely to happen in the near future.
1.3 Introduction to Research Methodology

In this thesis, a holistic timeline approach was taken to analyse each area and then all the pieces were linked together at the end to give an overall view. To provide a strong foundation for the study, the study began with historical evidence and then used path dependency to show how it affected the different areas that were covered. This allowed the chapters to branch off into parallel streams so that each section contains a complete timeline narrative.

Most of the research presented here is qualitative. Therefore, the conclusions are propositions. In order to support the argument put forward in this document, a number of case studies are supplied. The case studies were compiled by carefully gathering data from various academic and media sources. This was a true cross-disciplinary study because it required information from History, Sociology, Economics, Business and Information Technology to form a complete picture. As this study took a wide-ranging, cross-discipline approach it was essential to maintain coherent threads. The historical approach formed the coherent thread uniting the different disciplines.
1.4 Thesis Chapter Outline

Chapter 2 pinpoints the pivotal moments in Korean history that shape South Korea today. This section charts the debates about Korean origins and territory and explains how historic interactions with other countries and cultures have a profound influence on how people think within the country today. The information in Chapter 2 will provide a foundation for all of the other areas that follow. This literature presented outlines South Korea’s transition from one of the poorest countries in the world to one of the richest. It will show how strong Government control and centralised decision-making actually benefitted Korea economically at the expense of human rights and political freedom. Chapter 2 will answer the research question on how South Korea’s meteoric rise was achieved and how the tactics used are identifiable and understandable.

Chapter 3 focuses on the Neo-Confucian Ethical and Philosophical System that underpins Korean Society. This chapter will trace the pivotal path-dependent role Neo-Confucianism holds in the development of Korea’s economy. The old Confucian academies may have closed and its influence has weakened but this system still strongly influenced the relationships between people at home and in work within Korea while the country was quickly developing. Neo-Confucianism also strongly affected decision-making at all levels of Korean Government. Perhaps the most prevalent influence of Neo-Confucianism was in the education area. The Chapter will analyse how ICT education in Korea, with encouragement from the Neo-Confucian meritocracy, helped to propel Korea towards becoming a world leader in the area. Business relationships based Neo-Confucianist traditions also act as a barrier to incoming non-Korean businesses seeking to enter the marketplace. This will be explored in detail in Chapter 3.

Chapter 4 reviews the literature on the ICT industry’s role in economic development in Korea. The Chapter shows how the Korean Government strongly supported ICT in order to create an ecosystem that allowed companies in the area to thrive. Then, to illustrate the results of this initiative, an overview of the importance of ICT to Korea’s economy is presented. This is followed by a review of some studies showing where Korea ranks globally on ICT when compared to its peers. This information then
provided the basis for the research methodology employed in this thesis. In the second half of Chapter 4, that methodology is presented and justified, explaining why each research decision was made and what the expectations were.

Chapter 5 charts the rise of the Netizens in Korea as a social force. These fluid groups provide a real insight into the attitudes of large swathes of the population. Certain events are almost ignored by Internet Users, whereas other events lead to national protests that have at times brought the Government to the verge of collapse. In the context of this study, the key point is identifying which events were the triggers for large movements and what conclusion we can draw about society from these triggers. These triggers may be attributable to Korean history. As all of these interactions take place through online ICT channels, they provide indicators about what kind of international business activity in Korea is likely to lead to social unrest and resistance at a consumer or governmental level.

Chapter 6 is a case study that traces the battle between Microsoft’s Office Suite and Korea’s domestic Hancom Hangul Office Product. This is a good example of a globally dominant product attempting to enter the South Korean market that shows some of the difficulties they faced. It is also a good illustration of the path a small start-up company took when attempting to expand and grow. The study will show how consumer activism prompted the Korean Government to get involved in the area to support the domestic product and erected barriers to ensure the survival of the local company.

Chapter 7 examines online transaction security systems in Korea. This case study shows how Government involvement strongly shaped the direction of ICT business in South Korea. It also displays Korea’s willingness to go it alone and take a different direction than the prevailing global direction. This is a trait that has been exhibited on a number of occasions in Korean history. In this case, a unique ecosystem was created that benefitted one international company and some Korean organisations, but effectively shut out all others.

Chapter 8 analyses the Telecommunications and Mobile Phone business area in South Korea. This section follows the path Korean handset makers took in order to reach the
forefront of the international market. The case study presented in Chapter 8 traces the rise of Samsung and LG as they went from being minority players in their own country to world leaders in their fields. This rise involved significant interaction between the public and private sectors in a market where international companies were active with a substantial market share.

Chapter 9 provides a summary review of the main findings of the research, and concludes the research thesis by identifying limitations within the research, whilst also suggesting possibilities for further research. This Chapter also takes another look at the research questions to check if they have been adequately addressed and resolved. This is then summarised into an overall conclusion with final thoughts.

1.5 Summary

When choosing an ICT business study subject, it is important to choose a country that is significant globally. In this respect South Korea is an ideal country, as it is a world leader and exhibits early adoption characteristics and heavy usage patterns in the ICT field. Revenue from ICT products is now a key driver of the Korean economy. Many emerging economies look to Korea as a role model when they are carrying out planning, especially when it comes to technology. This means that the decisions and approaches taken by Korea now have large-scale repercussions for other countries because of reciprocal trade agreements. This thesis tries to identify how Korea has evolved into an ICT world leader and analyse what trajectory the country is on.
Chapter 2

How history still resonates today in Korea
Chapter 2: How history still resonates today in Korea

2.1 Introduction

The effects of South Korea’s history still resonate on a daily basis within the country. There is a feeling that even ancient history is still being written and debated. This ranges from disagreements on the origins of Korean people right up to whether the Japanese occupying forces actually improved Korea’s economy or not during their colonial period at the start of the twentieth century. In this Chapter, the key historical moments that still influence and shape modern Korea’s relationship with the outside world will be pinpointed and discussed.

This Chapter begins with a high-level overview of the shifting territories of the ancient Korean Kingdoms. China and Japan’s role in Korea’s history is always under scrutiny as certain groups in each country still regularly attempt to legitimise their past incursions on the peninsula using various perspectives on the past. The literature presented will show how the skirmishes and battles led to the Korean Kingdoms developing a type of siege mentality. This situation eventually progressed to a scenario where no foreigners were even allowed to land on Korean soil and trade with any country other than China was virtually non-existent. Some examples will be presented of what happened to Europeans and then Americans when they did happen to venture into Korean territory at that time.

During the 19th century, when many countries were aggressively expanding and creating empires, it was inevitable that eventually some country would investigate the idea of controlling Korea. As will be shown in this Chapter, Japan, Russia and China all managed to get a foothold in Seoul at the time, and were looking for opportunities to gain more influence. The evidence presented will show how war broke out between China and Japan first, and then Japan and Russia later, with Korea caught in the middle each time. The fallout of these wars ended up with Japan in control of the entire peninsula. This inability of the Korean people to defend their land from these external powers is now seen as a source of collective national shame and is never far
from the surface when Korean people have international dealings even today. This Chapter also outlines how Korean people learned from the industries the Japanese set up while occupying their country and then used that information along with investment and donations from abroad to transition from an agricultural country into a high-tech manufacturing centre in the region. As the Japanese colonisation of Korea progressed, this Chapter will show how Japan’s policies changed from occupation towards attempted cultural genocide. This triggered a wave of survivalist Korean nationalism that still exists in a diminished form today.

Next, the aftermath of the colonial period is traced showing how the U.S initially were not sure if Korea should be treated as an occupied hostile country, as in Japan’s case, or as a liberated ally. This indecisiveness ended up in a situation where the U.S did not fully support the South Korean leaders and left the country open to an attack by North Korea who were strongly backed by the USSR. This attack was the opening salvo of the Korean War. The Chapter then moves on the post-war period when Korea’s economy stagnated in the aftermath of the fighting under a dictatorship. It was in this environment that Park Chung-Hee took control of Korea using a military takeover. This was when the fortunes of the country started to change through a series of economic and legislative decisions that stimulated industrial progress. This section will analyse how heavily these changes were influenced by governmental manipulation.

From here, the topic of study will move on to the road to democracy in South Korea. It will show how economic growth continued even while the country was quite unstable politically. It was during this time that Korea hit a major financial obstacle now known as the 1997 IMF crisis. Then, throughout the first decade of the twenty-first century, successive elections saw Korea swinging back and forth from one political side to the other in an unprecedented series of moves. It demonstrated how far Korea had come from its military dictatorships while also showing that there was still lot of work to be done on social equality. This will bring the study right up to today’s South Korea providing an insight into how the country’s business environment ticks and how it got there.
2.2 Korea’s Ancient Warring Kingdoms

2.2.1 The Gojoseon Kingdom

The ancient Kingdom of Gojoseon, which was located in modern day Chinese Manchuria and North Korea, was the first civilisation to emerge on the Korean Peninsula (Seth, 2006). According to the Chinese history book the Weilue, Gojoseon became powerful enough by the 4th century Before the Common Era (BCE) to clash with one of the Seven Warring States of China (Lewis, 2007). This was one of the earliest examples of conflict between ancient Korean and Chinese Kingdoms. During the transitional period between the Qin and Han dynasties many people fled to Gojoseon. One of the refugees brought together a group of refugees and natives and overthrew King Jun of Gojoseon in 108 BCE. The revolution marked the end of the Gojoseon period (Ebrey, 1986). One example of how China became Korea’s window to the world was the arrival of iron through refugees during this time.

2.2.2 The Three Kingdoms Period (75 BCE – 668)

The three kingdoms referred to in this period were Goguryeo, Baekje and Silla as marked as in Figure 2.1 below.
Goguryeo was first referenced in Chinese records from 75 BCE describing an attack on a Chinese Commandery (Nishijima, 1986). As this region overlapped with Chinese Manchuria, regular battles took place for control of land. Therefore, the territorial boundaries were in constant flux, so the above map should be considered to be a rough estimation. Despite the frequent wars, the cultural influence of the neighbouring Chinese tribes on the Goguryeo people was apparent in their beliefs as Buddhism was adopted as their official religion and a Confucian university was founded in 372 (Best, 2007).

The second of Korea’s three kingdoms at the time was Baekje. Baekje was first described in Chinese historical texts in 345 (Bingham, 1941; Byington, 2003). Evidence suggests that the Baekje Kingdom had significant interaction with Japan. According to the Nihon Shoki (translation: The Chronicles of Japan), diplomatic missions from Baekje to Japan began around 367 (Sakamoto, 1991; Kim, 1999).
The third kingdom of this period was Silla. This kingdom was established around 51 BCE in the southeast of the peninsula (Sin, 2000). Goguryeo and Baekje recognised that the growth of Silla was becoming a threat and responded by forming an alliance and attacking Silla. In reaction, Silla exploited its relationship with the Chinese Tang Dynasty by using their newly gained access to the Yellow Sea as a communication channel (Akaboshi, 1975). The Tang-Silla army rapidly conquered Gaya in 562, followed by Baekje in 660, and Goguryeo in 668 leading to the Unified Silla period.

Recently, Goguryeo has become a subject of debate in both China and South Korea. As the Goguryeo territory lies partly in modern day China and also in North Korea, both sides are preparing for possible future ownership claims when North Korea and South Korea reunify by building up their historical evidence. The Chinese Academy of Social Science (CASS) created a research group called ‘The Northeast Project’ in 2002 (Sun, 2004). The Chinese Government supported this project and one of its aims was to establish that the Goguryeo kingdom was culturally, linguistically and ethnically Chinese. This was seen as another attempt to undermine Korea Sovereignty by nationalists in South Korea and they reacted with protests and a publicity campaign (Mohan, 2011). The disputes over this region are another bone of contention that contributes to the prevalent defensive mindset in South Korea. It was pinpointed as another example of a large foreign power preparing to try and take Korean territory if an opportunity arises (Kim, 2007). This kind of mindset drives Korean people to try and collectively make their country as strong as possible so that the Chinese claims can be rebuffed if they try to take North Korean territory or possibly even lay claim to the whole Northern half of the peninsula using the premise of Chinese Goguryeo History (Kim, 2007).
2.3 United Korean Dynasties

2.3.1 The Goryeo Dynasty and Mongol Invasions (918 – 1392)

The Goryeo Kingdom was established in 918 by Emperor Taejo in the central part of the Korean Peninsula. The area at the time was filled with warring factions and Taejo seized the opportunity to start a successful rebellion against the ailing Queen Jinsung of Silla (Lee and DeBary, 1997; Nahm, 1988). The Goryeo Dynasty was a relatively stable time for Korea. Goryeo managed 22 successions without dividing the Kingdom (Akaboshi, 1975). By 1225, King Gojong was the 23rd leader of Goryeo but he was living under the shadow of new aggressive Mongol neighbours. Their leader Genghis Khan sought to rapidly expand his territory in all directions (Atwood, 2004). While on a visit, one of the Mongol envoys was killed and an invasion of Goryeo was launched using this premise in 1231. The Goryeo defences were no match for the experienced Mongol armies and within one year, Goryeo had conceded defeat and was forced to pay tribute to their conquerors. The King of Goryeo then decided to resist the Mongols by moving his Imperial court to Ganghwa Island (Howorth, 1965). When the Mongols attacked again, their army took over most of the peninsula but despite the short distance to Ganghwa Island, the Mongols did not manage to take the island so they eventually withdrew.

This prompted a short respite from Mongol attacks but it did not last long. From 1235 to 1238, the battles raged again but Ganghwa Island still eluded the attackers. By 1258, Goryeo was completely devastated and was forced to concede to a peace treaty. The treaty decreed that Goryeo would retain basic autonomy, but the Goryeo King would have to marry a Mongolian princess and obey the Great Khans (Jackson, 2006). The king was not in a position to refuse the Mongol demands so he accepted the treaty. By the end of the 1350s, Goryeo managed to regain its independence without another Mongol invasion as their focus had turned west (Rossabi, 1990). This success encouraged the monarchy, and in 1388 the son of King Gongmin, Yu, decided to invade present-day Chinese Liaoning. This destabilised Goryeo and the regime eventually fell to Yi Seong-Gyege who established the Joseon Dynasty in 1392 as King Taejo.
2.3.2 The Joseon Dynasty (1392 – 1897)

The near 500-year Joseon Dynasty was the most stable dynasty in Korea’s history and it provided most of the foundations of modern Korea’s social structure, culture and language. The Joseon leaders favoured absolute rule and formality, and strongly imposed Neo-Confucian ideals and doctrines on Korean society (Ch’oe et al., 2000).

In the early period of the Dynasty, the most significant ruler was King Sejong. He managed to expand Korean territory northwards to regain territory lost to Chinese Manchuria and also carried out attacks on Japanese pirate communities on Tsushima Island to stop raids on Korean merchant ships (Haboush, 1988).

However, his most significant impact on Joseon lay in the areas of science and literature. King Sejong encouraged innovation and supervised the invention of water clocks and sundials, which allowed lunar and solar eclipses to be predicted in Korea for the first time. Furthermore in 1446, he sought to replace the Chinese Hanja writing system in Korea, as he deemed it to be overcomplicated and therefore elitist. To achieve this, he encouraged the creation of the simple 28-letter Hangul writing system as an alternative to the thousands of Chinese symbols that were formerly used. The Hangul characters were initially rejected by Joseon scholars but they were embraced and learned by peasants, so the new writing system grew in popularity over successive centuries and eventually became the primary writing method of the Dynasty (Joe, 2000).

The main feature of the 16th century Joseon Empire was the rise of Japan. Toyotomi Hideyoshi, one of the regional leaders under the Imperial Japanese Shogun managed to unite the various factions of Japan so he then turned his sights on Joseon and Ming Dynasty China (Berry 1982). The first invasion during 1592-1593 managed to seize territory all the way up to modern day Pyeongyang but the battle eventually reached a stalemate because the Joseon navy led by Admiral Yi cut off the Japanese supply lines at sea and the Ming Dynasty intervened in land battles (Lewis, 2003). This resulted in a truce between China and Japan whereby all Japanese forces left the Korean peninsula except for a small garrison on the South Coast. In 1597, Hideyoshi decided on a second attempt to take Joseon. The Chinese again came to Joseon’s aid and in a repeat of the first invasion, the naval battles were the key, with Japan unable
to establish sea dominance to support their ground forces (Lorimer, 2008) After the war, communication between Joseon and Japan was cut off and the Korean Kingdom became increasingly isolationist (Ha, 1979).

The next significant international event for Joseon was an invasion by the Chinese Manchus in 1627. The Joseon armies provided Ming China with 10,000 soldiers when Ming attacked Manchuria in 1619. The Manchus did not forget this, and in 1627 they invaded Joseon territory (Smith, 1994). The result of the first invasion was that Joseon was forced to open their markets and pay tribute to the Manchus, but they did retain their autonomy. However, as time went by Joseon started to reject the Manchu demands and this prompted a second invasion in 1636. This time the Manchu did not stop until they forced King Injo of Joseon to bow in submission to The Manchu leader on a platform floating on the Han River. The result was that Joseon remained a tributary state of the Chinese Qing (Manchu) Dynasty for the next 200 years.

2.3.3 Joseon’s first contact with Europe and the U.S.A

It was during this period that Joseon got its reputation as the Hermit Kingdom. While the European powers were starting to explore the far reaches of the world and establish colonies, Joseon became increasingly inward-looking and isolated. A feature of this time was a deep distrust of outsiders or foreigners. It was in this environment that one of the first European visitors literally washed up on Joseon’s shores. In 1653, Hendrick Hamel, a Dutch bookkeeper, was shipwrecked on Joseon’s Jeju Island with thirty-five of his crewmates while working for the Dutch East India Company (Hamel, 1981). The Dutchmen were brought to the royal palace in Seoul for closer study, as they had never seen Europeans before. They asked if they could be released but their request was denied and they were then informed that they now had to adhere to Joseon customs and their movement would be restricted. The end result was that the crew remained in captivity for thirteen years until they managed to escape to Japan and then go home to the Netherlands. After this experience, the ruling Emperors continued their policy of closing all doors to foreign countries. In most cases visitors were just rebuffed without violence. For example, in 1853 an American Naval ship visited Busan for ten days without incident before moving on. Furthermore,
the crew of another American ship that ran aground in Korea in the 1850s were reportedly treated well until they were sent to China to be repatriated (Kane, 1999).

The first military exchange between Joseon and a European Power was when the French Catholic missionaries of the Paris Foreign Missions Society arrived without official Joseon approval in the 1840s to preach to the locals. The missionaries had moderate success and even managed to convert some influential members of society. Then, in January 1866, Russian ships arrived on the east coast of Joseon demanding trading and residency rights. Some Korean Catholics saw in this an opportunity to forge an alliance between France and Korea to repel the Russian advances and the French Bishop Berneux offered his help to the Joseon leaders. Berneux was duly summoned to the capital, but upon his arrival he was seized and executed and a purge of Korean Catholics began to punish them for their political interference (Kim, 2001).

One French priest named Father Felix-Claire Ridel managed to escape to China via a fishing vessel. There, he met the French Admiral Roze who decided to take revenge by attacking Joseon’s Ganghwa Island. He occupied Ganghwa Island in the Han River estuary and made a few unsuccessful incursions onto the Joseon mainland. Eventually in November as the weather became bad and the number of Joseon soldiers nearby swelled, so Roze retreated and sailed to Japan (Orange, 1976). Another incident took place in August 1866 when the British trading firm Meadows and Co. sent the well-armed General Sherman steamer to Joseon hoping to engage with local officials and agree a trade treaty. The Koreans declined a trade deal but they did give the ship’s crew supplies and food. However, when the ship became stranded at Yangjak island near Pyongyang during low tide, the Joseon leader Prince Gung demanded they leave or be killed (Grimmet, 2004). In this tense standoff, violence flared up and after four days of conflict, the steamer was set on fire and all of its crew were forced to evacuate where they were hacked to death by locals.
2.3.4 Annexation into the Japanese Empire

As shown earlier, the reach of the European powers was growing in the region and Japan developed a plan to open and exert influence on Korea before somebody else did. To achieve this, they employed a forced diplomacy approach that was similar to the strategy U.S Commodore Matthew Perry used with his fleet of Black Ships to open up Japan in 1853. In 1875, a small Japanese warship was sent to survey Korea’s coastal region without permission. On September 20th the ship arrived close to Ganghwa Island, which was a sensitive area based on earlier skirmishes with the French and Americans as detailed earlier (Chung, 2005). Upon arrival, Commander Inoue launched a small boat with the official aim of searching for drinkable water. Predictably, the Korean cannons opened fire and then the Un'yō returned fire. Then, the Japanese attacked one other Korean port before returning to Japan. This battle was the basis for discussions that resulted in the Treaty of Ganghwa in 1876. Its aim was to open up Korean ports for trade with Japan, but it also put an end to Korea's position as a protectorate of Qing China from Japan’s perspective (U.S Gov., 1919).

By 1882, Joseon had become very unstable and factions with support from Japan, China and Russia were all vying for control of the territory. To add to the turmoil, the Korean Peninsula suffered a long dry spell, leading to food shortages and unrest. Some groups saw this as an opportunity to attempt to overthrow the Government and riots broke out in Seoul. On July 23rd, one rioting group attacked the Japanese legation and this gave Japan a reason to increase their forces in the region (Hsu, 1999). Japan sent four warships and additional soldiers to Seoul to safeguard Japanese interests, but also to try to establish a grip on Seoul. China then reacted by sending 4,500 soldiers to Seoul (Beasley, 2000). In 1884, violence flared again when a pro-Japanese faction managed to displace the pro-Chinese Joseon Government in a coup d'état. This did not last long though as the pro-Chinese faction, helped by Chinese soldiers, quickly regained control with a counter-coup (Duus, 1995). The situation led to the signing of the Sino-Japanese Tientsin Convention in 1885 that set rules and conditions under which Chinese troops could enter Joseon territory.

The final flashpoint that led to all-out war occurred in 1894 was the Donghak Peasant Revolution. The revolt was started by locals in southwest Korea. The group took to
the streets and attacked regional Government offices, demanding reform and the end of external influence in Korean affairs (Rhee and Kim, 2001). The Joseon leaders then asked for Chinese assistance to stamp out the revolt. China sent 3,000 troops into Korea to quell the resistance and notified Japan as per the Tientsin Convention. However, Japan interpreted this as a violation of the treaty and responded by sending in 8,000 of its own troops (Lone, 2004). Since the Meiji Period beginning in 1868, Japan had been modernising its society and military based on European and North American technology so China was no match for their greater numbers and firepower (Jansen, 2002). By July 1894, Japan had seized the Joseon Emperor, occupied the Royal Palace in downtown Seoul, replacing the existing Government with a pro-Japanese regime. The new rulers in Seoul quickly issued a statement approving the use of force by Japan to remove the retreating Chinese from Joseon and war was declared on 1st August 1894. Most of the fighting took place in modern North Korea and nearby at sea. The war did not last long due to Japan’s dominance and on the 17th April 1895, the Chinese signed the treaty of Shimonoseki that recognised the independence of Korea and ceded Taiwan and other territory to Japan (Paine, 2003).

With China now out of the picture, only Russia and Japan were now influential in Korean affairs. Empress Myeongseong was still the official leader of the country and she tried to create stronger ties with Russia in order to weaken Japan’s grip on Seoul. To counter this, the Japanese Minister to Korea arranged the assassination of the Empress on 8th October 1895 by Japanese agents within the royal palace in Seoul and installed her father Heungseon Daewongun as regent in a Japan dominated regime (Han, 2001). On the 11th February 1896, King Gojong, the husband of Empress Myeongseong, moved, along with his family, from Gyeongbokgung Palace in Seoul to the city’s Russian legation building and asked for protection. They attempted to govern in defiance of Japan from this location for about one year (Schmid, 2002). With assurances of Russian protection, King Gojong announced the establishment of the Korean Empire in 1897. This allowed him to return to the Royal Palace in Seoul but his power was limited (Yu, 2003).

The status quo continued in Korea until 1904, when tensions between Russia and Japan erupted into war. Japan defeated Russia in decisive sea battles and because their country was further weakened by internal revolts, Russia had no choice but to
concede (Olender, 2010). As part of the Treaty of Portsmouth, agreed in 1905, Russia agreed to Japan's 'paramount political, military, and economic interest in Korea' and thus removed Korea’s final buffer to Japan’s control (Jukes, 2002). This allowed Japan to force the signature of Korean officials to the Eulsa Treaty despite protests, which effectively made Korea a protectorate of Japan (Pak, 2000). This treaty was later classified as ‘null and void’ as part of The Treaty on Basic Relations between Japan and the Republic of Korea in 1965 as coercion was used on the signatories (Hook, 2001).

Emperor Gojong continued to work against Japanese rule and he sent a representative to the World Peace Conference in Holland to protest against Japan’s actions in Korea. The response from Japan when they found out was to force Emperor Gojong to abdicate his crown in favour of his son Sunjong on 18th July 1907 and then they created a treaty that transferred the administration of Korea completely to Japan. Neither Gojong nor Sunjong attended the treaty accession ceremony. The final step in Japan’s plan was taken on August 22th 1910 with the creation of the Japan–Korea Annexation Treaty. Emperor Sunjong of Korea would not sign the treaty so instead Korea’s Prime Minister Lee Wan-Yong and Japan’s General Terauchi Masatake acted as signatories (Beasley, 2000).
2.4 Korea under Japanese Rule

2.4.1 Introduction

The Japanese colonial period was a key turning point in Korean history. In modern Korea, it is mostly seen as a humiliating experience and resentment is never far from the surface when Korean people are reminded of it. However, as with most colonial experiences, the legacy is mixed. As part of the Japanese Empire, Korea transitioned from being mainly an agricultural, insular country into the second most industrialised country in Asia. Undoubtedly this industrialisation drive was aimed solely to benefit the Japanese Empire rather than Korea, but many of Korea’s modern business giants learned from their formative experiences with the Japanese at this time.

2.4.2 Social Unrest and the March 1st Movement

The first major flashpoint in Korea under Japanese rule was the death of former Emperor Gojong in January 1919 (Kim, 1997). This coincided with a speech delivered at the Paris Peace Conference during the same month by U.S President Woodrow Wilson in which he put forward a list of fourteen points underlying the rights of nations to self-determination (Snell, 1954). His comments were not specifically aimed at Korea but they did encourage a group of Korean students studying in Japan to publish a statement calling for freedom for their country. These events sparked protests across Korea including various declarations of independence by nationalist groups in March 1919 (Wells, 1989). The Japanese authorities reacted by violently suppressing the movement and over 7,000 people were killed in the ensuing troubles during the following twelve months (Rummel, 1999). Another significant event occurred in April 1919 when the Provisional Government of the Republic of Korea was formed in Shanghai fronted by future South Korean President Rhee Syngman (Ryang, 2000).

An important step by Japan in their attempts to diminish attempts at Korean Sovereignty was the assimilation of the Korean Royal Line. Yi-Eun, the Imperial Crown Prince of Korea, was forced to marry Princess Masako Nashimoto of Japan in Tokyo in 1920 and live in Japan. In addition, 76 Koreans who collaborated with Japan
were given peerages under the Japanese Kazoku System (Lebra, 1993). However, ethnically Korean citizens were not allowed to vote in elections or be elected to Japan’s House of Representatives (Jowett, 2004). This shows how Japan was willing to annex Korea but not fully integrate Korean people into their Empire on the same footing as their own citizens. In the aftermath of the March 1st protests, Japan did make some small concessions to Korean demands though. In 1920, a civilian force replaced the military police, and two new newspapers, the Dong-a Ilbo and the Chosun Ilbo, were founded (Schmid, 2002).

2.4.3 Changes to the Korean economy and education system

The Japanese annexation of Korea saw profound changes to the economy and infrastructure of the country. As seen earlier, the Joseon Empire in Korea had been effectively isolated from the world, with an emphasis on domestic agriculture and local small-scale traditional industries including weaving and pottery. Initially, Japan exploited Korea’s agricultural potential by growing rice and establishing the roads needed to export it to Japan (Ban, 1974). However, in the 1930s, as the threat of war loomed larger, Japan progressed towards creating factories and industries to provide the materials needed for their military efforts. This was a priority for Japan as Korea was the main land route for supplying arms to the front lines in China and later in South East Asia. The port of Busan close to Japan was extensively developed and a freight railway was built running the length of Korea to transport supplies (Suh, 1978).

In the early days of the colonial period, almost all of the companies in Korea were entirely Japanese-owned and managed. By 1938, however, Japanese companies were down to 39.9% of the total, and almost 60% were Korean owned (Haggard et al., 1997). Despite the fact that Japan retained control of the key industries, many of these Korean entrepreneurs went on to found the post war companies that drove Korean growth in the 1960s to the 1980s. This structural change can be seen in Table 2.1 where from 1910 to 1940, the proportion of manufacturing in Korea’s GDP rose from 3.5% to 22%, while agriculture dropped from 95.2% to 69.7% (Cha, 2000).
### Structural Change in Korea (Proportion of each Sector to total GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture &amp; Fishing</th>
<th>Mining</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1910-15</td>
<td>95.2%</td>
<td>1.3%</td>
<td>3.5%</td>
</tr>
<tr>
<td>1916-21</td>
<td>93.1%</td>
<td>1.4%</td>
<td>5.5%</td>
</tr>
<tr>
<td>1922-27</td>
<td>90.2%</td>
<td>1.2%</td>
<td>8.6%</td>
</tr>
<tr>
<td>1928-33</td>
<td>87.4%</td>
<td>2.0%</td>
<td>10.6%</td>
</tr>
<tr>
<td>1934-39</td>
<td>75.6%</td>
<td>5.8%</td>
<td>18.3%</td>
</tr>
<tr>
<td>1940</td>
<td>69.7%</td>
<td>8.3%</td>
<td>22.0%</td>
</tr>
</tbody>
</table>

Table 2.1 Korean Manufacturing Versus Agriculture in Colonial Times (Source: Cha, 2000 p88)

Japan also introduced their education system to Korea. In 1912, at the beginning of the colonial period, the Korean school enrolment rates were at 20% for young men. By 1940, this figure had climbed to 60% (Ban, 1974). However, this was not altogether a positive experience for Korean people, as the system’s official aim in both Japan and Korea was ‘The Formation of the Imperial Citizen’ and therefore the glorification of the Imperial House of Japan was a key goal. Japan also founded a university in Seoul, called Keijo Imperial University, for Japanese students and the Korean elite. This university eventually became part of Seoul National University in post-war Korea (Kimura, 1993). Initially, some attempts were made to include traditional Korean elements in education curricula but these were phased out in the 1930s.
2.4.4 A change in Japan’s policy in Korea

In 1937, the Japanese policy in Korea changed when war broke out again between China and Japan. The new approach was to strongly attempt to assimilate the Korean people into the Japanese Empire (Cumings, 1997). One change as part of this, that caused major resentment, was that the Japanese began forcing Koreans to adhere to the Shinto religion at school. Worship of the Japanese emperor was also promoted, and new Shinto shrines were constructed all over the country. Then, in 1937, the Japanese governor general issued a command that all teaching in Korean schools should take place in Japanese only and students must not be permitted to use their native language during or after school hours (Gill, 1998).

The next step taken was in 1938 when the Japanese Government began to enlist Korean youths in the Japanese army as volunteers. Following on from this, in 1939, a policy called Sōshi-kaimei was created declaring that Koreans must stop using their traditional Korean names, and instead they were given Japanese names (Mizuno, 2004). Officials forced people to use these new Japanese names to register at school, get married, buy property, or apply for jobs. By 1940, it was estimated that 84% of Korean families had changed their names. In a further suppression of the Korean language, leaders of the Korean Language Society were accused of crimes during the 1940s for putting together a Hangul dictionary. These steps are the main reasons why accusations of cultural genocide are often leveled at Japan by Korean people today (Maga, 2001).

The path that the Japanese were on in Korea was accelerated further by their attack on the U.S Navy base in Pearl Harbour, Hawaii in 1941. Now, faced by a war at sea with the U.S and land battles against the British in South East Asia, Japan sought to maximise all of the resources at their disposal. Therefore, in 1942, the Japanese National Mobilisation Law was extended to include Korean Men, and 5,400,000 Koreans were conscripted to work for Japan (Morison, 2001). Close to 1,000,000 were sent to work within Japan. In addition, nearly 8,000 Koreans were employed in some sort of police work during 1942 but Japanese control was ensured because they never held more than 3% of the jobs in the police department above the lowest levels (Dear & Foot, 1995). In 1944, conscription was extended to include Korean men in
the Japanese military. The total number of Korean military personnel in the Japanese army at its peak was 242,341 (Jowett and Andrew, 2002).

As part of the international response to Pearl Harbor, the exiled Provisional Government of the Republic of Korea declared war on Japan on the 9th December 1941. The Provisional Government banded together with the Korean Liberation Army, who were supporting the war against Japan in China and South East Asia (Frank, 2001). In 1945, Korean rebels entered Japanese controlled Manchuria, where they trained soldiers from the ethnic Korean groups there. These fighters eventually formed the Korean People's Army of North Korea at a later stage. Therefore, an unusual and tragic situation occurred with thousands of Korean soldiers fighting on opposing sides throughout the war.

2.4.5 Legacy of the colonial period: The Korean diaspora.

By the time Japan finally surrendered in August 1945, Korea was the second-most industrialised region in Asia after the main Japanese islands. By early 1945, 32% of Japan's labour force was migrant Koreans (Zeiler, 2004). As a result of conscription and war, Korea went from a country with virtually no emigration to having a large diaspora. In 1945, close to eleven percent of the entire Korean population lived outside of Korea. For example, the Korean workers that were sent to the island of Sakhalin, north of Japan, mostly remained there for their entire lives, because they were unable to return home after the Soviet Union took over the territory. In August 1945, when the United States used nuclear bombs on Hiroshima and Nagasaki, approximately 25% of the casualties were Korean Nationals (Piccigallo, 1979).
2.5 The Korean War

2.5.1 Introduction

The Korean War was the first large-scale conflict of the Cold War that came to dominate the world in the second half of the 20th Century. The resulting struggle split families, decimated any industry left in Korea and sent the country spiraling back into extreme poverty. In a bitter irony, the war ended with a stalemate drawn almost exactly along the same lines that divided the North and South before the combat began.

2.5.2 Arrival of the U.S and Soviet Forces

On the 9th August 1945, as World War II was moving towards a conclusion, the USSR declared war against Japan and their army reached the northern part of Korea within two days. This forced the United States Government to quickly devise a plan for Korea. Thus, on August 15th, 1945, President Harry S. Truman suggested to Stalin to divide Korea at the thirty-eighth parallel and one day later Stalin agreed. On the 26th August, the advancing Soviet forces stopped at the 38th parallel and waited for the U.S army moving up from the south (Zhang, 1995). The American forces arrived in Korea a few weeks later on September 8th, 1945. The Korean Provisional Government, led by Rhee Syngman, then returned from exile to Seoul but the United States said they would not recognize any group as the Government until an agreement was made between the Western Allies (Carpenter, 1980). In December 1945 a meeting was held in Moscow where the Allied representatives decided to set up a five-year trusteeship for Korea (Ohn, 1988).

U.S and Soviet representatives met regularly in Korea from March 1946 until talks broke down in October 1947 (Goulden, 1982). The U.S struggled to manage the southern part of Korea during this period. When the Japanese left Korea, most of the mines and factories lost their managers, engineers and capital resources (Dower, 1999). This caused widespread unemployment and shortages. Furthermore, subsequent months saw vast arrivals of Koreans arriving back home. South Korea's population was approximately 16 million in 1945, but it increased by 21% in the next
year with workers returning, mainly from Japan and China (Olsen, 2005). The situation was worsened by food shortages and by runaway inflation, partly caused by the Japanese who saturated Korea with freshly printed yen just before leaving. By 1947, only about half the available labour force had jobs and strikes, stoppages and protests in opposition to the U.S Military Government took place regularly (Robinson, 2007).

Meanwhile, the Korean Communist Party re-emerged in Southern Korea in October 1945, and quickly built a substantial following (Hunter, 1999). Due to the uncertain political climate, the U.S shelved their plan to donate US$500 million for South Korean development. The situation was then submitted to the United Nations (U.N) by the U.S for resolution. In November 1947, the U.N General Assembly accepted Korea's petition for independence and proposed the creation of a new Government along with the removal of occupation forces. U.N representatives arrived in Korea during May 1948 to monitor the election but Soviet Union officials denied them entry to Northern Korea (Foot, 1991). It was starting to become apparent that two distinct regimes would be established on the peninsula.

2.5.3 The outbreak of war

In May 1948, an election took place in the southern half of Korea that the Soviets first opposed, and then boycotted (Brune and Higham, 1994). The new Government created a constitution and elected President Rhee Syngman as president in July 1948 (Hickey, 1999). North Korea then held elections three months later and established a communist government led by Kim Il-Sung, who proclaimed himself the legitimate leader of the whole country (Millett, 1997). The South Korean army was founded in September 1948 and President Rhee's regime immediately banned all left-wing groups. In reaction, members of the groups made preparations for a guerrilla war, so President Rhee responded with a series of purges. One significant example was the Jeju Island Peasant Uprising in April 1948 where over 20% of the island’s population were killed (Carpenter, 1980). The American representatives in Jeju documented the massacre, but did not get involved. In addition to the purges, there were a series of border skirmishes and raids between the North and South.
The Soviet Union officially withdrew their forces from Korea as agreed in 1948, but continued to support Kim Il-Sung with supplies and training. Meanwhile, the wave of purges in South Korea left the U.S with a difficult dilemma. The killings were keeping the U.S-friendly regime in power but they were also starting to get international attention (Casey, 2008). The decision was made to withdraw and by July 1949, the United States forces left, except for some military advisers, and Korea had been removed from the official United States defence perimeter.

By June 1950, North Korean forces had over 200,000 troops with Soviet-made weapons, tanks and planes. Conversely, the South Korean army had fewer than 100,000 soldiers with only a handful of tanks, heavy artillery and combat airplanes. Official requests were made to the U.S for tanks but they were rejected (Millett, 2005). The North Korea People’s Army (KPA) began their invasion at dawn on Sunday 25th June 1950 (Yang, 1981). South Korea's army was caught by surprise and was unable to defend themselves. Seoul was captured within three days and in little over a month, South Korean forces were pushed back all the way to the southeast corner of the country.

2.5.4 U.N and Chinese involvement

The U.N held a meeting on the 25th June and condemned the attack. Next, the Security Council published a resolution recommending that their members offer assistance to South Korea. The USSR was unable to issue a veto because they had refused to attend council meetings since early 1950 (Pak, 1980). The U.S had maintained a large military force in Japan since the end of WWII so they were able to deploy their forces quickly. Initially, American forces arrived in Busan to defend the city. Then, the UN forces launched an attack behind enemy lines at Incheon near Seoul on September 15th. The attack fractured the North Korea supply lines and within weeks, the UN forces took South Korea back. The North Korean army continued to be pushed back until almost all of Korea was in U.S - ROK hands.

With hostile forces nearing their border, the People’s Republic of China, led by Mao Zedong, decided to intervene. Mao created the concept of a Chinese People's Volunteer Army (PVA) on the 8th October 1950 to avoid official Chinese
involvement and his troops attacked the U.N forces (Zhang, 1995). Initially, the Chinese pushed the U.N forces all the way back to an area south of Seoul but the remaining two years of the war were characterised by small territory gains by each side (Edwards, 2006). The conflict reached a stalemate around the 38th parallel and eventually India proposed an armistice, which both sides accepted on July 27th, 1953 (Blair, 1988). As part of the agreement, a four kilometre wide DMZ (a demilitarized zone) was created between the two Koreas that still exists today but no peace treaty was ever signed.

2.6 The Economic Transformation of South Korea

2.6.1 Introduction

The period between 1950 and 1979 in South Korea saw some of the most dramatic changes witnessed in any country during the 20th century. Emerging from the debris of war and colonial occupation, Korea managed to reshape itself into a modern country, able to compete effectively in many business areas with Europe and North America. The achievement is even more remarkable considering the fact that a lot of the development took place under oppressive dictatorships with a backdrop of almost continual civil unrest. South Korea’s President for most of this period, Park Chung-Hee, is now seen as the architect of South Korea’s modern economy. Unusually, for a dictator coming from a military background, he had a keen grasp of economics and business, and he used this to completely transform South Korea. This transformation came at the expense of personal freedom and the people that did not directly benefit from Korea’s industrial revolution were marginalised and became disenfranchised. As will be seen in the next sections, Park steadily increased his grip on all areas of South Korea’s society until his measures went too far for even his own supporters and they assassinated him. Therefore, his legacy can only been seen as lying somewhere between economic success and social failure.
2.6.2 Post-War South Korea

The Korean War devastated the country’s infrastructure and industry. Some 43% of the country’s manufacturing facilities, 41% of electrical generating capacity and 50% of the coalmines were destroyed. Economically, Korea in the 1950s was predominantly an aid-dependent economy with one of Asia's lowest per capita incomes behind even Papua New Guinea (Lee, 1968). By 1957, South Korea had a lower per capita GDP than Ghana. Aid financed nearly 70% of total imports and 73% of the Government’s borrowing requirements, and in 1960 South Korea had a US$100 per capita annual income (Buss, 1982).

After he again won the 1954 elections, President Rhee passed an amendment to the previous two-term limit so he could continue in office (Cole and Princeton, 1971; (Cho, 1984). This, along with alleged election irregularities, triggered large protests spearheaded by University Students. On March 15th 1960, at a major protest, the police opened fire and the subsequent deaths drew the attention of the international media (Han, 1974). By April 1960, civic groups, citizens and academics had joined the demonstrations, and this time the police had no choice but to hold back. The unrest seriously undermined President Rhee, so he stepped down (Jacobs, 1985). A new Government was formed on August 13th, 1960 but this did not quell the public dissatisfaction. The situation started to spiral out of control and the Government felt they had no choice but to step back and allow General Park Chung-Hee to assume military control via a coup d'état on May 19th 1961 (Henderson, 1968).

2.6.3 Park Chung-Hee’s Coup D’état

Park Chung-Hee’s coup was largely welcomed by South Korean people, as they had grown weary of the constant disputes and protests. In June 1961, the new regime quickly consolidated their power by setting up the Korean Central Intelligence Agency (KCIA) to block any potential countercoup attempts (Kim, 1975). This was followed by the creation of a new constitution in December 1962 that gave the President the authority to order emergency financial and economic measures (Mason, 1980). While making the move from a military to a political leader, President Park also began a transformation of the South Korean economy so as to lift it from poverty
and to allow it to become independent from foreign aid. When the military took over, they announced that they intended to stamp out the corruption that had held their country back (Oliver, 1978). This resulted in the arrest of some leading industrialists but the new Government then realised that it would need their assistance to modernise the economy. A compromise was agreed where some of the accused company managers were fined instead of imprisoned, and this allowed businesses to continue operating while also providing the platform President Park needed to begin implementing his economic agenda. One major benefactor of the amnesty was Lee Byung-Chul, the founder and owner of Samsung, who initially fled to Japan when the military seized power, but then returned to Korea to take part in President Park’s new initiative (McNamara, 1990).

In 1961, President Park tightened Governmental control of finance by nationalising the banks and consolidating the agricultural cooperative movement and the agricultural bank. This gave his administration direct control of all institutional credit and allowed them to steer the business community in certain directions. To manage this new system, an Economic Planning Board was set up and this became the focal point of future development plans. President Park’s regime decided that his Government must directly control the economy. This resulted in an economic strategy that included features of both state capitalism and enterprise (Steinberg, 1989).

2.6.4 The First Five-Year Plan

President Park launched the first of a series of five-year plans in 1962 in order to stimulate and move the economy forward. The first five-year plan (1962-66) sought to make South Korea self-sufficient and create capital for investment. The plan involved the construction of a self-sufficient industrial structure that was not consumption-oriented or very dependent on oil imports (Hong and Krueger, 1975). Target areas including electricity generation, fertiliser production, oil refining, synthetic fibres and cement were emphasised. Currency control measures were also introduced and the South Korean won was drastically devalued in 1964 while import quotas for raw materials were loosened. Personal saving accounts were encouraged by interest rate increases and capital loans from abroad provided funding. Exports were supported by
Government subsidies while taxes and restrictions on the importation of intermediate items that were utilised to create export products were abolished (Grajdanzev, 1978).

In the early stages of this new economic direction, most South Koreans worked in agriculture and over sixty percent of the country's people lived in rural areas (Amsden, 1989). Up until this point, North Korea had been racing ahead of the South in terms of industrialisation based on the substantial economic, technical and financial assistance it received from the Soviet Union and catching up was a key aim for the South. Since the Korean War, family-owned businesses, called ‘Chaebol’ in the Korean language, had been sprouting up, but they lacked the cash needed to grow successfully. The main exception was the Samsung organisation, which already operated a large sugar business and a textile company throughout the late 1950s and early 1960s (Eckhart, 1991).

President Park identified an opportunity to get the capital he needed during negotiations leading to the ‘Treaty of Basic Relations between Japan and the Republic of Korea’ in 1965 (Fairbank, 1973). The official South Korean documents outlined the following:

- The South Korean leadership agreed to ask for no further compensation, either by the government or individuals, in return for US$800 million in grants and soft loans from Japan.
- All treaties or agreements concluded between the Empire of Japan and the Empire of Korea on or before August 22nd, 1910 were considered null and void.
- The South Korean Government agreed that they would manage the distribution of compensation to individuals who suffered from Japan's colonial actions and rejected Japan's suggestion to directly compensate individuals. Instead the Government received the compensation on the behalf of the victims.

Many South Koreans questioned Park's decision to normalise relations with Japan and while it resulted in widespread unrest, it did not manage to destabilise his regime. The
South Korean Government used the majority of the money on economic initiatives, eventually paying only the small sum of around US$280 per death as compensation in the mid-1970s to the families of those that were previously employed in forced labour (Kihl, 1984). To complement the incoming foreign capital, the South Korean Government stimulated domestic capital by promoting savings, controlling the type of factories constructed using these grants, and reviewing what products were suitable for exportation. Their Economic Planning Board published export targets that triggered extra government-subsidised credit bonuses and increased access rights to Korea’s expanding domestic consumer base. Conversely, failure to reach targets meant that credit was withdrawn (Kim, 1980).

The South Korean Government spent most of this new money on the development of infrastructure. They built motorways and hydroelectric dams using technology expertise given by Japanese companies (Koo and Han, 1985). The company that benefited most from this investment was another family owned Chaebol. Chung Ju-Yung, the founder of Hyundai, had experience with construction from his time working on projects with the U.S military in the 1940s and 1950s. This allowed Hyundai to construct a major bridge over the Han River in Seoul and Korea’s first motorway. President Park’s Government steered private industry using these export and production targets to control credit along with informal pressure and persuasion in parallel with more traditional monetary and fiscal approaches. The Government aimed to exploit existing technology and be competitive in businesses where more advanced countries had already managed to succeed. Their goal was that their workers could make low cost, high-quality products that would sell in the U.S and in other industrialised countries (Rhee et al., 1984). Then, the revenue generated from selling these exports could then be used to provide additional capital, create new jobs, and repay loans.
2.6.5 State control over enterprise

The main goal of the second five-year economic plan (1967–1971) was to move Korea into heavy industries by making the country more competitive in the global marketplace. One of the features of this plan was that the Government began to push and steer companies into industries that were deemed to be beneficial for the country. It was a very successful approach and the South Korean economy expanded so quickly that the U.S opted to gradually decommission their aid program, deciding it was no longer needed. One example of a successful company that emerged during this time was POSCO in Pohang.

During the mid-1960s, President Park’s regime decided that self-sufficiency in steel production and the establishment of domestic steel production plants were key parts of their economic development plan. Most international economic observers were sceptical because the consensus of opinion was that countries like South Korea with a surplus of labour but a small amount of capital should not make capital-intensive products like steel. Another fact that cast doubt on the viability of the move was that Korea produced negligible amounts of the raw materials needed for steel. Furthermore, the nearest reserves of these ingredients were not available because the cold war was blocking trade between China, the USSR and South Korea. This meant that the raw materials would have to be shipped from Australia, the USA and Canada which were over 8000 km away, adding to the production costs (Lee and Lee, 2009).

Based on the above details, along with the fact that South Korea did not have a steel processing factory prior to 1968, potential foreign investors were wary of the Government's decision to invest in establishing a steel plant even though Park’s Government proposed to subsidise the steel mill, provide free infrastructure, tax incentives, fast depreciation of the value of capital technology used (so tax responsibilities could be kept to a minimum in the initial years) and discounted power and water bills (Lieberman and Kang, 2008). More factors that discouraged most potential European and North American investors was that Park Tae-Joon, a former Korean army general with limited business experience, was chosen to head up the company as a state-owned enterprise (SOE) and that the operation was to be located in a small fishing village called Pohang (Cumings, 1987).
In April 1969, all investors backed out of the project but President Park forged ahead with his plans by diverting the continuing soft loan reparations from Japan into the project. The project was financed by US$73.7 million in Government grants, a US$50 million loan from the Japanese Export-Import Bank and with technical help from Nippon Steel and other companies (Lim, 1998). POSCO began production in 1972 and initially aimed their sales strategy towards domestic companies. At the same time, an effort was made to produce high-quality iron and steel below international export prices to strengthen the company’s global competitiveness. This protection, along with the growth of complimentary industries that depended on steel, allowed POSCO to expand their production (Song, 2000). Throughout the 1970s, POSCO continued growing, and by the late 1980s they became the fifth largest steel company in the world and were consistently rated the world's best steel manufacturer in productivity and facility metrics. Then in 1987, the Korean Government outlined plans to privatise POSCO in line with their new policies for state-run organisations but it did not affect the company’s growth (Stern, 1995). As of 2013, POSCO was the 4th biggest steel producing company in the world (POSCO, 2013).

One distinct feature of the Korean Government during this period was that they steered a number of private sector companies into industries that they would probably not have chosen to enter willingly. This was often done through incentives such as subsidies or tariff protection from imports, although these measures were also used to punish under performers by keeping them out of the loop and restricting their competitiveness. Some of the businesses steered in this fashion by the government turned out to be very successful. One example from the late 1960s was the LG group. The company was banned by the Government from entering its desired textile industry and was forced to enter the electric cable industry (Taniura, 1993). Now, LG is one of the largest consumer electronics companies in the world.

Another example from the 1970s came from the Hyundai Group. The Korean Government exerted pressure on Chung Ju-Yung of the Hyundai Group to start a shipbuilding company. Hyundai did not have any experience in building ships and no manufacturer in South Korea had built a ship larger than 10,000 tons before that time. Hyundai was given the target of building 260,000-ton oil tankers. The first group of European bankers that Hyundai approached for financing loans turned them down and
the Korean Shipbuilding Association did not help when they told prospective lenders that the project was not feasible (Lim, 2002). Despite the setbacks, Hyundai eventually managed to get a loan from British bankers and secured an order from a Greek company for two large tankers. Hyundai bought permission to use a design from a Scottish shipbuilding company and started construction of one of the ships before their shipyard was even finished. When the ships were completed in 1973, the Greek firm refused to buy the ships because of a sudden drop in oil prices. After an intense search, alternate buyers were found for the ships saving the company from an early collapse (Fieldes, 2004). It was from these modest beginnings in the industry that Hyundai eventually managed to develop into the world’s largest shipbuilding company with a 15% share of the market globally as of 2013 (Hyundai, 2013).

As these companies grew, South Korea’s foreign exchange reserves also grew because of increased exports and foreign receipts. In addition, the Government began to increase tax and try to cool consumer product price inflation but a lot of these changes had a negative effect on farmers, who had to accept the Government’s policy of cheap grain prices. Overall, considerable success was achieved during the initial two five-year economic plans. Manufacturing led the way, growing by 15% and 21%, respectively, in each of the first two five year plans. The number and value of domestic savings accelerated and export figures grew quickly (Hinton, 1983). In 1971, President Park won another election. This allowed his Government to create a new constitution, known as the Yusin Constitution (Kang, 2002). The new system increased the President’s power and transformed the presidential election system to an electoral college instead of a popular vote. To illustrate how these changes cemented President Park’s leadership, the elections in 1972 and 1978 saw his regime re-elected without any opposition (Gleysteen, 1987).
Under the third five-year economic plan, the Government aimed to further develop South Korea's heavy and chemical industries by investing in steel, machinery production, shipbuilding, electronics, chemical processing and non-ferrous metals. The plan was created to ensure that South Korea was globally competitive and to make it possible to produce weaponry domestically as part of the cold war arms build-up. The managers of heavy and chemical organisations worked to supply industry with the raw materials and capital goods they needed to diminish or even eliminate any dependence they had on imports. However, the downside of this tightly managed approach was that the giant family-run Chaebols continuously received preferential treatment, dominating the domestic market and stifling competition (Yoo and Lee, 1987). Furthermore, as the majority of the development came from external loans, a lot of the profits had to be sent abroad to repay the loans and service the interest repayments.

Despite the economic progress, student and activist groups continued their protest campaigns calling for the dismantling of the Yushin Constitution. Threats and attempted violence became a regular phenomenon. One close call came in August 1974, when Park had a narrow escape from an attempted assassination by a Japanese-born North Korean, but the stray bullets killed the president's wife (Ma, 1999). After this tragedy, President Park became reclusive and his administration extended emergency measures, which resulted in the imprisonment of hundreds of dissidents. At this time, his daughter and future South Korean President Park Geun-Hye took over the role of first lady and accompanied him to meetings.

The fourth five-year economic development plan (1977-81) was launched with a backdrop of ever-increasing protests against President Park’s regime. By 1978, economic growth had started to level off and inflation emerged as a big problem (Lee, 2001). In late 1978, Park tried to implement a stabilisation plan to control the economy, but the moves triggered a deep recession, causing bankruptcies and higher unemployment. In September 1979, students in Daegu, Busan and Seoul took part in violent exchanges with police, prompting the Government to declare martial law (Hwang, 1985). The harsh clampdown on the protests divided opinion in Park’s
Administration. On October 26th, 1979, a small group of the nation's most powerful figures from the military and KCIA gathered in a private restaurant to talk about the situation. In the disagreement that followed, the head of the KCIA assassinated President Park and his bodyguards in what seems to have been a premeditated attack (Kirk, 2001).

In his eighteen years as leader from 1961-79, Park Chung-Hee worked to drive his country into the ranks of developed nations and achieved significant results. His approach was somewhat similar to the steps taken in Japan's Meiji period (1860-1930), in which a feudal society evolved into a modern nation. During his rule, South Korea saw some dramatic changes to the country’s economy and society. In the early days of Park’s rule in the 1960s, approximately 58.7% of the national workforce was involved in agriculture and fishing, but this figure dropped to 50.4% in 1970 and then 38.4% near the end of his Presidency in 1978 (Kim, 1996). Furthermore, the proportion of employees working in secondary industries, like mining, processing and manufacturing, increased from 10.3% in 1965 to 35.2% in 1970 and 38.4% in 1978.

The rapid industrialisation of the country led to a sharp jump in Korea's urban dwellers. The numbers in this category increased from 28.3% of the population in 1960 to 54.9% in 1979 (Balassa, 1985). This urban migration led to a large change in the lifestyles of the people as they moved from the quiet countryside into dense hyper-competitive cities. The migration coincided with giant economic leaps during the 1970s, when the annual industrial production growth rate averaged close to 25% (Cho, 1994). This triggered a fivefold increase in GNP between 1965 and 1978. Furthermore, throughout the mid-1970s, exports accelerated by close to 45% per year. Another area that saw massive changes was the field of education. In 1960 approximately thirty percent of children between twelve and fourteen years old went to middle school. That percentage shot up to 53.3% by 1970 and then to 74.0% by 1975. Furthermore, around 19.9% of teenagers from fifteen and seventeen years old went to high school in 1960 but the total increased to 29.3% in 1970 and then up to 40.5% by 1975 (Bosworth and Collins, 2003).

A further measure of Korea’s progress was the lessening of the country’s dependency on foreign aid. Between 1953 and 1974, the country received close to US$4 billion in
aid but afterwards grant assistance dwindled to a tiny amount. Around US$3 billion was given prior to 1968, contributing an average of 60% of the total investment in South Korea. Between 1966 and 74, foreign aid totaled around 4.5% of GNP and had dropped to below 20% of all investment. This growth in independence increased Korea’s ability to stand on its own feet and make decisions without having to answer to benefactors.

During the eighteen years of Park’s rule, South Korea transitioned from being a mainly rural, agricultural country into an urban, industrialised nation. Debates will continue about whether his giant economic strides forward were tarnished by his crackdowns on democracy movements but one thing is indisputable. President Park’s time in office was the key turning point in modern Korean history and South Korea’s business environment continues to benefit from the decisions that he made.

2.7 Korea’s path to Democracy

2.7.1 Introduction

South Korea had managed to make giant strides while catching up on developing countries by concentrating on heavy industries and manufacturing. The progress was built upon low-cost labour combined with efficient reverse engineering in order to create cheaper products that could often undercut the prices coming from Japan, North America and Western Europe. However, now the country was faced with another challenge. The success meant that labour costs had increased, so the country was forced to move towards more high-end products including consumer electronics and semiconductors to stay competitive.
2.7.2 Filling the political vacuum

After Park Chung-Hee's assassination, South Korea was in turmoil. Choi Ky-Ha, who had previously served as the South Korean Prime Minster under Park, was elected president in late 1979 (Kim, 2005). However, this new Government turned out to be a very short-lived affair. University students and labour unions increased the scale of their protests against the Government to a point where continued operation was impossible. General Chun Doo-Hwan took advantage of the anarchy to stage another military coup (Lindauer, 1997). This move did not dissuade the opposition and on May 18th, 1980 a confrontation took place in Gwangju City between students and the army. The incident expanded into a citywide protest that resulted in a massacre where 200 protesters were killed with 850 injured (Scott-Stokes and Lee, 2000). General Chun reacted by dissolving the National Assembly and assuming complete control of Government.

New tight monetary laws and low interest rates from the Chun administration achieved price stability so the economy expanded, partially driven by electronic, semi-conductor and automobile growth. However, the foremost performer at this time was the Chemical Industry, which grew by 51.8% in 1981. A doubling of investment in electrical power, integrated manufacturing systems, engine efficiency and heavy construction vehicles also contributed to growth (Kim, 1997). The rise in investment can be partially attributed to the opening up of the country to foreign capital and this triggered a rise in GDP as exports increased. The growth coincided with a slump in the heavy and chemical industries of more developed nations towards the end of the 1970s and in the early 1980s as production shifted towards emerging economies. The above progress paved the way for the fifth five-year plan (1982 - 86) which planned to move the focus away from heavy and chemical industries towards technology-intensive industries including precision manufacturing and consumer electronics (TVs, VCRs and semiconductors). The new ventures were a success and South Korea managed to achieve an average of 9.2% real GDP growth from 1982 to 1987 (EIU, 1990). One downside of the rapid economic growth was the fact that it increased the divide between those who were rich and poor who were now mainly split between the urban and rural regions. The economic divide caused strong rural and student unrest, and protests took place throughout the decade (Human Rights
Watch, 1990). Over a million students and citizens participated in anti-government rallies throughout the country during the summer of 1987 in a campaign now known as the June Democracy Movement (Kirk and Choe, 2008).

2.7.3 The Path to Democracy

As President Chun was not allowed run for the Presidency again after his seven-year term, he nominated his colleague Roh Tae-Woo as his replacement in the 1987 election. Roh’s Government tried to liberalise South Korea somewhat after taking office. Freedom of the media was improved, university independence was permitted and some international travel restrictions were removed. However, economic expansion slowed because strong labour union activity and increased salaries reduced the competitiveness of Korea’s products on the global market (Pyo, 1989). This caused in flat export figures even though the price of commodities continually rose in the same period.

From 1987 to 1991, the sixth Five-Year Economic Plan (1987-91) was implemented, intending to expand import liberalisation and to reduce some of the non-tariff obstacles to imports (Cho and Koh, 1996). Promises were included to stop corruption and end direct Government assistance to certain businesses while implementing employee training schemes and promoting research and development in all areas, especially for the small and medium-sized enterprises that didn’t get a lot of help before. This coincided with continued economic growth, averaging 12.5% between 1986 and 1988 (Noland, 2005).

President Roh’s loosening of the military’s grip on power made it possible for the election of the country’s first non-military president for three decades during the 1992 elections. Former activist Kim Young-Sam won the Presidential election and he continued the series of five-year economic plans by unveiling its seventh iteration (1992-96). This plan aimed to promote high-technology industries, including microelectronics, fine chemical products, bioengineering, optics and aerospace engineering. Other economic initiatives were also implemented at this time including financial reform and joining the OECD (Takatoshi and Rose, 2006).
2.7.4 The 1997 IMF Crisis

Because South Korea’s economy grew so quickly, it created a financial bubble effect. This took place at the same time as a number of other bubbles developed in the East and South East Asian region. As with most financial bubbles, a culture of over-reliance on borrowing despite underlying bad debt evolved. These debts built up in the mid-1990s due to fixed exchange rates that encouraged excessive external borrowing at a time when interest rates were low due to a recession in the U.S. Thailand, Indonesia and South Korea were all common culprits in this regard (Noland et al., 1998). When the U.S economy began to recover, interest rates were raised in an attempt to control inflation. Investment money then began to be re-routed to America, which caused the U.S dollar to strengthen leaving the indebted export-orientated countries that were pegged to the dollar exposed. This triggered massive debt problems across South East and East Asia (Kaufman et al., 1999).

In Korea, many of the problems stemmed from large non-performing loans given from the banks to the giant Chaebol companies to fund aggressive expansion plans. With Government backing, the companies soaked up increasing capital investment while failing to ensure returns and profitability. The first company to go public with their problems was Kia Motors when they requested emergency Government loans in July 1997. As the scale of the debt unfolded, Korea’s credit rating and share prices plummeted. The Seoul stock exchange dropped by 4% on the 7th November 1997 followed by its biggest ever drop of 7.2% the day after. Intervention was needed and in December 1997, the IMF agreed a USD$21 billion loan with Korea, along with a USD$58.4 billion bailout scheme (Kang, 2002).

Initially, the capital injection and financial restructuring demanded by the IMF did not alleviate the slide. Korea's economy contracted at an average rate of -6.65% per quarter throughout 1998. The US$170.9 billion drop was equivalent to 33.1% of the 1997 GDP. The Korean national debt-to-GDP ratio shot up from almost 13% to 30% due to the crisis (Blustein, 2001). During this time some large companies ended up as casualties. Hyundai Motors took over Kia Motors and the entire Daewoo Chaebol had to be dismantled by the Government. The electorate of South Korea voted after they
saw their savings and jobs wiped out and the opposition, led by former democratic activist Kim Dae-Jung, swept into power in the 1998 elections.

2.7.5 Reform and The Sunshine Policy

The Korean people heralded the Presidential election win by Kim Dae-Jung as a democratic triumph. Subsequently, he spent thirty years on the political sidelines protesting against military rule. His past perseverance and determination made him a very attractive candidate in Korea at a time when the country was ravaged by the economic effects of the 1997 IMF crisis. A significant program of reform was kicked off by the new administration in 1998 to try and arrest the slide put into motion by the financial crisis. President Kim attempted to implement the economic restructuring plan recommended by the International Monetary Fund. A national pension scheme was put in place, the education system was reformed, Governmental support for the ICT area was expanded and cultural locations were approved for classification as UNESCO Cultural Heritage sites. President Kim's Government also aggressively pursued foreign investment and cooperated with industry to try and stimulate business. One large campaign started at this time to address the huge debts incurred by the bailout involved asking all citizens to donate their gold, which would then be sold on international markets to help the country. Ten tons of gold were collected in just the first two days of the campaign (Song, 2003).

In order to comply with the terms of the IMF rescue package, a number of important reforms were carried out by the Government. In 1999, twenty loss-making ventures associated with the five largest Chaebol companies were forced to cease trading. Then, five banks that had accumulated bad debts were closed down. Another change made was that employment laws were modified to allow organisations to lay off workers more easily. Within the Government, a major restructure also took place, with 108 public corporations closed or merged into 13 Government run bodies. In addition, 15 public enterprises were privatised and about 27,000 Civil Servants were let go (Ahn and Kim, 2000). When the possibility of some of these public enterprises being bought by non-Korean investors came up, a series of protests were held by labour unions and other groups. This resulted in the creation of a Citizen Share Ownership (CSO) system, whereby the sales of shares in public enterprises could be
controlled to ensure that a non-Korean investor could not hold a majority stake in any of the organisations (Jin, 2006).

By quickly implementing reforms and mobilising Korea’s collective will to recover, the nation was able to bounce back from the crisis in a reasonably short period of time. Much of South Korea's recovery was attributed to workforce adjustments (i.e. improving productivity with lower wages) and securing alternative funding sources. By the end of the first quarter of 1999, GDP growth had increased to 5.4%, and further increases along with deflationary currency moves resulted in annual growth of 10.5% (OECD, 1999). By December 1999, President Kim Dae-Jung felt confident enough to officially declare that the currency crisis was over. The strong growth continued into 2000 with a 9.08% GDP increase but the recovery slowed to 3.8% in the early 2000s due to the uncertain global economic conditions, reduced exports and a prevailing attitude that the corporate and financial reforms had lost momentum (Kim, 2001).

One of Kim Dae-Jung’s defining actions was the initiation a new strategy called ‘The Sunshine Policy’ after his election in 1998. The goal of this policy was to reach out to North Korea and try to build a better relationship by promoting interaction and providing economic development help. South Korea’s national security policy was based on three basic principles at this time (Han, 2002):

- ‘No armed provocation by the North will be tolerated.
- The South will not attempt to absorb the North in any way.
- The South actively seeks cooperation’.

Under this framework, Kim Dae-Jung travelled to Pyeongyang to take part in a summit meeting with North Korea’s leader, Kim Jong-II, in 2000. This was the first ever meeting between the leaders of the two countries. The meeting led to Kim Dae-Jung being awarded the Nobel Peace Prize in 2000. However, his legacy was tarnished in 2003 when the cash-for-summit scandal broke (Bandow, 2005). Kim Dae-Jung faced allegations centred around a secret multimillion dollar payment by his administration to the North Korean leadership to permit the North-South summit and that he set up an organisational lobby group to help him to win the Nobel Peace Prize.
2.7.6 The Participation Government Movement

In the 2002 election, President Kim Dae-Jung decided not to seek another term and this resulted in a very open election campaign (Horne, 2002). Political outsider Roh Moo-Hyun managed to take advantage of a positive wave of enthusiasm based on a ‘Participation Government’ campaign and won a narrow election victory. This was an inconsistent time for the South Korean economy. Despite the stagnant global conditions in 2002 the country did manage 5.8% growth based on heavy industries and construction. Conversely, investment capital was also leaving the country, youth unemployment rose, and apartment prices in Seoul ballooned past what most people could afford. Economic growth then dipped in 2004, but manufacturing rose 5% in 2006, based on the exports of consumer electronic products including HDTVs and mobile phones (Kim and Park, 2007). Roh Moo-Hyun decided not to contest the next election as his approval rate had fallen to an extremely low level. In 2008, Roh Moo-Hyun's brother was jailed for illegally taking bribes from construction executives. As the investigation progressed, it became apparent that Roh Moo-Hyun's aides along with members of his family would become involved (Moon, 2010). Roh Moo-Hyun died on the 23rd May 2009 after allegedly jumping off a cliff while hiking near his countryside home.

2.7.7 Korea Inc.

Due to Roh Moo-Hyun’s extremely low approval ratings, it became apparent that voters would seek an alternative type of president. Lee Myung-Bak, the mayor of Seoul, seized upon this opportunity as his background was the polar opposite of Roh Moo-Hyun. Roh always portrayed himself as a political outsider who came in to provide an antidote to Korea’s elitist parties that consisted of graduates from a small group of Seoul Universities and former executives of Chaebol Companies. On the other hand, Lee Myung-Bak was an insider right from the start, serving as student council President and graduating from Korea University (most of Korea’s elite study at one of the SKY Universities i.e Seoul National, Korea or Yonsei University). He then worked at Hyundai for 27 years, eventually as a top executive, before moving into politics (Choe, 2008). The election turned out to be a landslide victory for Lee Myung-Bak and it gave him a platform to steer Korea in a different direction than the
previous administration. He emphasised the need for Korea to create a business-friendly environment to kick-start the economy.

However, his plans were dealt a major blow right from the outset as a major global downturn occurred in 2007. Growth dropped by 3.4% during the final quarter of 2008 compared to the previous quarter. This was the first negative quarterly growth figure in a decade, and the trend continued into 2009. Many areas of the economy declined, with manufacturing levels dipping 25.6% by the beginning of 2009, and consumer product sales falling 3.1%. Exports in the key areas of automobiles and semiconductors shrunk 55.9% and 46.9% respectively, and overall exports dropped by 33.8% in January, followed by 18.3% in February 2009 compared to the previous year. As with the 1997 crash, the Korean Won also fluctuated significantly, sliding 34% in value against the U.S Dollar.

Economic growth dropped to 2.3% in 2008, and was predicted to dip even lower, but Korea managed to hold the downward momentum to 0.2% in 2009 (OECD, 2010). Unlike most industrialised economies, South Korea was able to avoid a recession at this time due to effective stimulus measures and strong domestic consumption figures that countered the sharp reduction in exports. In 2010, South Korea recovered by bouncing back with an economic 6.1% growth rate. This was partially attributable to a rise in exports to China that counterbalanced the sluggish European Markets (Lee, 2010; Herman, 2010).

In 2012, another Presidential Election was held and the Saenuri Party won again ensuring continuity from the Lee Myung-Bak regime and a continued conservative approach for the country. Korea’s latest President was Park Geun-Hye, the daughter of previous President Park Chung-Hee. As Korea’s first female leader, this was a milestone moment in the country’s history (Shinawatra, 2013). While running for election, she had to face many accusations about her father’s poor human rights record and she tried to distance herself from his actions. As President, she is trying to emulate her father’s economic successes while avoiding the civil unrest and social problems of the past.
2.8 Conclusion

This Chapter covered a number of key historical events and details that continue to shape Korea today. Certain groups in China, both North and South Korea and Japan are all trying to place their own spin on Korean history to support certain arguments. Some Korean people see any interpretations that do not match with the majority view inside Korea as a major threat to the country’s sovereignty. In the past, China provided Korea’s only window to the world and cultural, trade and religious knowledge were passed down the peninsula using this channel. Examples of this as seen above include both Buddhism and Confucianism. However, at the same time, the ancient Korea kingdoms seemed to have almost constant running battles with the Chinese tribes in the Manchurian areas for control of land.

Based on historical evidence, the Joseon Dynasty was the longest and most stable of Korea’s kingdoms. Joseon was also heavily dependent on exchanges with China. However, the creation of the Hangul writing system was a real turning point for Joseon. It displayed a willingness to come out from under China’s wing and go in an independent direction. Also, it was an attempt to make the country less elitist and spread literacy amongst the population. This is why it is still a source of great pride to Korean people today both North and South of the border. It also became a symbol of the resistance to the Japanese Annexation in the first half of the 20th Century. In Chapter 6 of this thesis, a case study is included that shows how important the symbolism of Hangul still is. When Microsoft was perceived to be threatening a product that was associated with Hangul, it resulted in a strong reaction from the media and activist groups.

When looking at the territorial struggles between China, Korea and Japan, the available literature shows that the Korean peninsula became increasingly seen as a strategic bridge between China and Japan that needed to be controlled by Korea’s neighbours. Initially, China and then the Mongols ventured south through Korean territory to invade the Japanese islands only to be thwarted by bad weather and rough seas. Later, the situation was reversed with Japan viewing the peninsula as a stepping-stone into Mainland China and beyond. This led to the famous Korean proverb that says, ‘when two whales fight, it is the shrimps whose backs are broken’. The result of
these wars was that the Joseon Empire decided to try and shut the door entirely to outside visitors. They banned trade and contact with all foreign countries. As seen above, the door opened a little when Catholicism arrived but when the priests started to become influential, immediate action was taken and they were either expelled or killed.

One of the driving forces for Korea’s development, and for North Korea’s continued existence, is the burning desire to never let the perceived humiliation of occupation happen again. The logic behind this is that Korea must keep up with progress in other countries to ensure nobody can look down on their country as weak peasants and inferiors again. For example, in North Korea, the Juche idea of self-reliance and the Songun ‘Military-First’ doctrine is entirely focused on never allowing the country to be ashamed and suppressed again. The only difference is that the main enemy that North Korea wants to protect itself against today is the USA instead of Japan or China as in the past. In South Korea, this manifests itself as a desire to never allow the country to fall so far behind again technologically. This is the driving force behind Governmental decisions made to nurture and protect domestic innovation. Based on their bad historical experiences, Korean people and institutions are now suspicious of the motivation behind foreign influence and products. This is why even if the trade barriers to imports are removed through FTAs, the natural inclination of Korea people is to be wary and place hurdles in the way of anything that may threaten local industries. This will be seen clearly in the case studies presented later in the thesis.

The most dramatic transition in Korea’s history was undoubtedly the industrial development drive that took place when President Park Chung-Hee was in power. However, to identify where the entrepreneurial Chaebol families came from, it is necessary to look back a little further as this Chapter shows. It was during the Japanese Colonial period that the Korean people really got first-hand experience of an industrial and military powerhouse. As with almost all colonial scenarios, Korea had a large number of people trying to resist the Japanese takeover, along with a group of opportunistic collaborators trying to benefit from the new ruling regime, while the majority of the population was just trying to survive and get food and shelter for their families. As shown by development statistics, Japan quickly attempted to reduce Korea’s focus on subsistence agriculture, replacing it with heavy industries and
mining. However, it is also clear that Japan’s motivation for investing in Korea was to use the country as a gateway to Manchuria and China. One indicator for this was the first railway built in the country. As explained earlier, this ran from Busan in the south east of the country to the northern border areas and was used to transport military arms and supplies.

As Japan was expanding its reach very quickly across East and South East Asia during this period, Japanese business owners were in no position to run every operation in Korea using Japanese managers and workers. Even in their own country, many factories were understaffed so Korean workers were brought to Japan (sometimes voluntary, sometimes not). These exchanges allowed Korean workers to learn how the Japanese businesses worked by collaborating with the Japanese. It was during this process that knowledge and skills transfer took place providing the foundation for the post-war entrepreneur explosion in South Korea. The key indicator of this transfer is that by the end of the second world war, Korean immigrants comprised 32% of Japan’s labour force and 11% of the total Korean population ended up outside of their homeland with the vast majority working for the Japanese Empire’s war effort. From 1937 on, Japan took the extra step of trying to really integrate the Korean people into their Empire by forcing them to use Japanese names, discouraging the use of Hangul and venerating the Japanese Gods and Emperor in schools. Japan was aware at this stage that war was brewing and they wanted their empire to be united and strong. This is the period that has left the most scars in modern Korea as many people now see these moves as an attempt to erase their nation’s identity and culture.

When Japan was defeated by the USA at the end of World War II, the U.S initially seemed unsure as to what to do with South Korea so they installed a flimsy trusteeship. In contrast, The USSR had no such indecision problems and quickly made Kim Il-Sung the leader in Pyeongyang. These decisions set about a chain of events that eventually led to the Korean War, which decimated and divided the country in a North-South split. From analysing the literature, it is apparent that the allies made big mistakes while establishing South Korea, effectively tempting the USSR and North Korea into thinking the path was clear for a hostile takeover. This is the basis for why some South Korean groups today still criticise the USA and the U.N
for their part in causing the Korean War by not providing enough protection for the new country that they set up from the ashes of the Japanese Empire. The Minjok concept of an ethnic Nation-State is still strong in Korea, so supporters of this idea suggest that the Korean War only took place because the USSR, China and the U.N all contributed to make an environment where war was inevitable even between reluctant brothers. This is yet another source of the wariness directed towards external influences in Korea today.

The Korean War saw Korea as a shrimp between two new whales: the U.S and the USSR. This time the peninsula was not really seen as a bridge between two territories but instead as another line in the sand between Communism and America’s form of Democracy. The U.N did manage to save South Korea from being unified under Kim Il-Sung’s leadership but it came at a cost with cities in both North and South reduced to piles of rubble and millions killed. It left South Korea as a country entirely dependent on foreign aid with high unemployment and an unstable government.

The instability continued, forming the catalyst for the coup d’état led by General Park Chung-Hee in 1961. When he transitioned from his military role to a political one, President Park immediately showed he had an appreciation for business by inviting the owner of Samsung back from exile in Japan to encourage entrepreneurship. Also, his regime nationalised the banks and centralised all economic decision-making. This was the precursor to the first of the five-year economic plans that began the complete transformation of South Korea. The President needed capital to fund these plans and this was where the Basic Relations Agreement between Japan and South Korea became essential. The soft loans included in this agreement were then mostly allocated through the nationalised banks to fledgling businesses. In exchange for the credit, the Korean Government steered the companies into the industries they wanted to target. It was an extremely centralised approach right from the start. The Government used protectionist mechanisms both domestically and internationally. Companies that the government supported got all the credit and the help they needed and others were blocked and shut out.

It is testament to the force of character of President Park that he was able to control the economic direction of the country despite the U.S having a preference for opening
up the country to foreign imports. Perhaps one reason Park managed to do this without major U.S. resistance is because Korea started off so far behind and the country’s growth rate and ambition took the majority of people by surprise. The literature suggests that Korean companies would not have ventured into some of the industries they went into unless they were forced to by President Park. The success of South Korea goes against the economy theory of comparative advantage put forward by David Ricardo, which suggested that countries should focus only on industries where they can be internationally competitive, and then trade with countries to get items they do not produce domestically (Hollander, 1979). Instead, Korea’s development success is closer to an example of the competitive advantage economic theory. Korea’s economy began with what could be described as a Cost Leadership Strategy where products and services were provided at a lower cost than competitors. Later, this evolved into a hybrid Cost Leadership / Innovation Strategy when Korea began to produce high-end technology products, but still tried to sell them at a lower cost that many of their competitors to ensure that they remained competitive internationally (Rijamampianina et al., 2003).

From the evidence provided, there can be no doubt that South Korea’s development did not take place due to free market practices. Decision-making was very centralised and closely managed. It was funded from abroad but those providing the money did not seem to have a strong influence in how it was used. In the years that followed the assassination of President Park, Korean business continued to develop amid social and political turmoil. The military seized power again and political opponents were imprisoned. This kind of upheaval would seem to be counter-productive to economic development but apart from a few setbacks the growth continued. The can be attributed to the momentum built up from earlier business development being sustained by a slight opening to international investment while maintaining domestic protection barriers and centralised decision-making.

Throughout the late 1980s and 1990, a shift in Korea’s economic focus took place moving from heavier industries to consumer products. This was a very successful move and again showed Korea’s ability to quickly adapt to an emerging opportunity. Even the dramatic crash of the 1997 IMF crisis turned out to be just a blip as Korea returned to economic growth within just two years. In the following decade, the
country started to really stand up as a part of the developed world to become a world leader in technology. Some examples of this will be seen in Chapter 8 in the telecommunications area.

In summary, the key points of this Chapter are that Korea’s economic development plan and approach was extremely centralised and consistently led by the Government and a small number of handpicked businesses. As the country developed into a leading world economy, these strategies have been loosened. FTAs have been signed and import barriers have been removed but the Government still retains a heavy involvement in the Korean business world. This involvement is unlikely to be dismantled any time soon. Based on this macroeconomic overview, it should come as no surprise that the Government is still deeply involved in the ICT business area as will be discussed in Chapter 4. This will also be shown in the case studies later in this thesis. Based on the evidence provided within this Chapter, Neo-Confucianism was one of the key factors that influenced economic growth by its prioritisation of a metocratic system of Government and education. In Chapter 3, this area will be explored in depth to analyse how it influenced the path that Korea took to modernisation.
Chapter 3

The role of Neo-Confucianism in Korean Business and Society
Chapter 3: The role of Neo-Confucianism in Korean Business and Society

3.1 Introduction

One of the central tenets that consistently occupied a pivotal, but diminishing place throughout Korea’s economic development was Neo-Confucianism. Neo-Confucianism is an ethical and philosophical system that originated in China and was brought across to the Korean Peninsula and localised over the past two thousand years. Today, it still strongly influences how Korean people interact with each other both domestically and internationally. Korea’s version of Neo-Confucianism evolved from its Chinese roots by adapting to local customs and co-existing alongside traditional Korean Shamanism and Buddhism.

This Chapter begins by providing a simple definition of Confucianism that shows how it works at the most basic level. The definition will then be used to pinpoint what areas of Korean society today still exhibit strong Confucian influences. Next, a brief look at how Confucianism arrived in ancient Korea will be presented. It will show that Confucianism spread slowly and was not instantly accepted. It only really began to be important when it was used as an exam assessment system for Government scholars. At times, there was a struggle between the acceptance of Buddhism and Confucianism, but eventually the two systems managed to find a way to co-exist alongside each other while not always being complementary. Eventually, a localised version of Confucianism emerged in Korea through co-existence with other systems that became known as Neo-Confucianism.

Next, the influence of Neo-Confucianism in Korean Organisation Culture will be explored in this Chapter. This takes five important characteristics of the system and drills in to each one to see what effect it has and how prevalent it is. Each of these characteristics are important pieces of the puzzle that together help to define Korea’s business culture. Practical examples of these characteristics from Korean companies will also be provided. Another essential area that Neo-Confucianism touches on is in education. The connection between Confucianism, education and civil service exams
in Korea goes right back to when the system was first introduced onto the peninsula from China. An investigation will be included in this Chapter to see how the importance of education and qualifications within Confucianism has become embedded in Korean society.

By providing an understanding of how important this system still is in Korea, this Chapter aims to act as a building block for later sections. It will illustrate how difficult it is for products, companies or people who do not fit into the system to become accepted as insiders. This in turn will help to show why barriers can be put in place that may not be easily surmountable for foreign business seeking to enter the Korean market.

3.2 A Simple Definition of Confucianism

3.2.1 Introduction

Confucianism is an ethical and philosophical system of patterned uniform behaviour that aims to develop harmonious cooperation between people, while minimising the need for legal intervention to control communities. The original basis for the philosophy centres on a value written as Ren in Pinyin. Ren is usually translated as benevolence or humaneness (i.e the essence of being human). The aim of a Confucian follower should be to ensure that all of one’s interactions are governed by this value (Do-Dinh, 1969).

3.2.2 Yi and Li

The principle of Ren is associated with two other concepts, written as Yi and Li in Pinyin. All three of these concepts are closely interrelated. Yi is sometimes translated as justice, righteousness or morality (Nylan, 2003). It relates to the will to treat people fairly and honestly. This value is common to many religions and belief systems. Li is a more difficult concept to grasp. Li is often translated as customs, etiquette or the rules of proper behaviour. As it encourages standard consistent approaches to activities, it is often described by comparing it to religious rituals. Li applies to a wide range of activities and goes beyond human interaction. Some examples of where it
can be seen in Confucian traditions include mourning, tea drinking, study techniques and governance (Twitchett, 1962).

When using the Confucian system, members of society should seek to perfectly balance themselves according to a value system in which filial piety based upon Ren commences with service to one’s parents, proceeds to service to the ruler (or the state or the public) based on Yi while using Li, and finally is completed through making one’s name famous in the world by his achievements for the benefit of society, thereby glorifying their parents. When a person achieves Ren, they become an ‘exemplary person’, written as Gunja in Pinyin (Yao, 2000).

This leads on to one of the key Confucian doctrines known as The Three Commands and Five Morals, which apply to most human relationships within the system (Leys, 1997). Underlying this principle is the assumption that people have different roles depending on their station and the proper relationship stems from that role. In Confucianism, it is essential for everyone to know his or her proper place in a relationship (Ames and Rosemont, 1998). An example of this from a traditional text is when a nobleman asked Confucius about governance, he replied:

- ‘The ruler must act like a ruler
- The subject must act like a subject
- The father must act like a father
- The child must act like a child.’
3.3 The History of Confucianism in Korea

3.3.1 The Introduction of Confucianism from China

Confucianism was first introduced to Korea through China during the Goguryeo Dynasty era. This system is based on the 4th / 5th Century BCE teachings of the philosopher Confucius from the northeastern Chinese Lu state. This state lay directly across the shallow sea between the Korean Peninsula and Mainland China, so a natural flow of the philosophy spread as part of Chinese influence over Korea (Legge, 1867). The first documented Confucian Academy on the peninsula was established in 372 in the Goguryeo Kingdom according to the Samguk Sagi (Gardiner, 1970). Evidence suggests that Confucianism was integrated gradually into Korean traditional beliefs alongside Shamanism and Buddhism (Bowman, 2002).

The transfer of the philosophy did not exclusively occur from China into Korea. Despite being strongly associated with Buddhism, the Southern Silla Kingdom is also known to have sent some of its subjects to study Confucianism in the present-day Chinese city of Xi’an in the 5th Century (Na, 2003). This led to the use of merit-based exams on Chinese Classics in the Unified Silla Kingdom to determine which scholars would form the elite of society. Study for these exams took place in an institution called Gukhak (Nahm, 1996). This resulted in a society where Confucianism and Buddhism co-existed in parallel even though Buddhism was still considered to be of much greater importance to Silla during this time.

One important step in the growth of Korean Confucianism took place in 958, when King Gwangjong of the Goryeo Dynasty built upon the earlier Silla system and set up civil service examinations known as Gwageo to select suitable candidates. Study for the exams took place at an institution known as the Gukjagam, located in modern day Kaesong (Kang and Lee, 2006). The educational program in turn trickled down to local Hyanggyo provincial schools and spread throughout the Kingdom. One of the reasons why this introduction of Confucianism was readily accepted was that the philosophy itself evolved by incorporating elements of Buddhist and Taoist teaching. This modified form of the system is now known as Neo-Confucianism and it ultimately resulted in a more palatable version of the teachings for Korean people.
However, the Royal Family of the Goryeo Dynasty still clung strongly to Buddhism alongside Confucianism, which stifled its penetration (DeBary, 1985).

3.3.2 The birth of Neo-Confucianism

The role of Confucianism in Korea changed dramatically towards the end of the 14th century when the Joseon Dynasty overthrew the Goryeo Dynasty. The new installed Joseon Dynasty rejected Buddhism and implemented a strict form of Neo-Confucianism. The roots of this rejection began with revolutionaries within the late Goryeo Dynasty who believed that Buddhism contained the core of everything that ailed the Goryeo Dynasty, and decided that Confucianism alone was a more suitable ideology (Gale, 1972). When the Joseon Dynasty ascended to the throne, King Taejo re-iterated his commitment to Confucianism by declaring a connection between the people’s longing for a new regime to heaven’s mandate for how a Kingdom should be run based on the classic texts (Vermeersch, 2008).

Confucianism was quickly accepted as the state philosophy of the new dynasty. To ensure that the old Goryeo supporters did not reassert their leadership claims, anyone clinging to Buddhism was restricted or persecuted. A school system, with schools known as Seowon and Hyanggyo, was established throughout the country using Confucianism as its core curriculum. Education is one of the key tenets of Confucianism and the scholars that emerged from these schools during the 15th century became the ruling class that shaped Korean society at that time (Osgood, 1951). Confucianism called for a rule by virtue, and the way to attain that virtue was through constant studying. This meant that according to the system, those who studied hardest deserve to rule. Therefore, Korea implemented a yearly civil service exam so that the learned men in the Kingdom could display their learning and therefore their ability to govern.

The most influential of these scholars was Jo Gwang-jo who was born in 1482. He encouraged a radical reform of Confucianism in Joseon as he felt it had become corrupted by power hungry Yangban (Korean Noblemen). Based on the teachings of Chinese Scholar Zhu Xi, Jo Gwang-Jo implemented a fundamentalist Confucian
education system that aimed to include everyone (Kalton 1988). This was made possible by translating the Chinese characters of the literature into the new simple Korean Hangul script so it no longer took years of study to read them. However, his eventual downfall was due his own status, as he was perceived as a threat to the King. This resulted in him being sent into exile and eventually forced to drink poison to ensure he did not engineer a revolution. Nonetheless, he influenced the spread of the philosophy to all parts of Joseon society and paved the way for scholars who moved beyond learning the texts and started to create their own Neo-Confucian ideas.

The period from the 16th century to the mid-19th century in Korea was marked by wars with China and Japan, followed by international seclusion. This meant that Neo-Confucianism was retained as the dominant philosophy in Korea throughout the Joseon Dynasty period and became very strongly ingrained in the Korean psyche (Noh, 2003). When the Joseon Empire came to an end, the use of Neo-Confucianism ceased to be a formal part of Korean Government. However, by that time, it had already been the basis for the dominant philosophy for over 500 years. When the first Christian Missionaries in the mid-19th and early 20th century came to Korea, they had to try and adapt their teachings to not contradict the Neo-Confucian ideals of Korea in order to gain followers. Then, during Japan’s occupation of Korea, attempts were made to impose the Japanese Empire’s form of Imperial totalitarianism. This certainly had a strong influence, now more apparent in North Korea than the South, but it still did not manage to erode Korea’s social structure. Korea did not have to face a contradictory ideology in the South during the second half of the 20th century as modern capitalism somehow managed to merge and co-exist with traditional ideas (Lew et al, 2011). This is the opposite of what happened in China at the same time3. It is on this basis that South Korea is often referred to as the most Confucian-influenced country still in existence today (Deuchler, 1992; Robertson, 2002; Park and Cho, 1995).

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3 Maoist Communism diluted Confucianism in China to a certain extent. An example of this is the political campaign that the ruling Communist Party began in 1973 in China called the Anti-Lin Bao, Anti-Confucius Campaign (Hsiung, 1984).
3.4 Neo-Confucanism in Organisational Culture

3.4.1 Introduction

Among the Neo-Confucian relationships, the pivotal relationship is the one between a parent and a child (Joe, 2000). This is the relationship that forms the foundation of Ren and it also heavily influences a number of other interactions. The cascading effect of the relationships is very apparent in Korean workplaces and organisations. Neo-Confucianism is not the only influence in Korean organisational culture but it has resulted in a number of distinct features and the five of these listed below will be investigated in further detail during the next sections:

- Paternalistic Leadership
- Family-Like working environment
- Hierarchical structure
- Importance of Family Ties and Blood-Based Succession
- Gender inequality

3.4.2 Paternalistic leadership

All of the main five Confucian relationships, namely ruler and subject, parent and child, elder and younger brother, husband and wife and friend and friend exist both in Korean organisations and within families. In a workplace, this means that the most senior manager effectively occupies the role of a parent, while employees take the role of children and colleagues act as brothers (Tan, 2008).

To make the above system function, ritual behaviour and etiquette must be adhered to. These rituals are present at home, in school, in the military and in universities so most Korean people are already well used to it even before they begin their professional careers. Through both speech and gestures, subordinates should show loyalty and respect to their superiors, while a superior should look after the needs of his subordinates. As it is based on the role of a father, the expectation is that the superior
manages in a strict way, but also using affection. This sometimes crosses the line to become bullying which is a frequent criticism of Korean organisations (Kim, 1994).

Conversely, the role of the inferior involves obeying a superior’s commands and carrying out any work assigned by their superior without objecting. In Korean companies, this has evolved into a culture with distinct paternalistic leadership characteristics. This can be directly linked back to the records of Analect, where Tzu Chang asked:

‘The Chief Minister Tzu Wen was appointed three times, but never showed any sign of pleasure. He was fired three times, but never showed any sign of disappointment. He would always inform the incoming minister about all the details of the prior government. What do you think of him?’

Confucius answered, ‘He was loyal’. As shown in the dialog between Tzu Chang and Confucius, loyalty and paternalism are crucial in Confucianism (Farh and Cheng, 2000). Employees or junior members of organisations are discouraged from complaining about their work and the expectation is set that they obey their superiors without any complaints.

While Confucianism demands loyalty from the inferior side, it also expects a high standard of leadership from superiors in order to maintain good relationships. The key standards that need to be maintained by superiors are fairness and ensuring that the pride of their workers is not compromised. In Analects, Chi K'ang Tzu asked Confucius: ‘How can I make the people reverent and loyal, so they will work positively for me?’ Confucius said, ‘Approach them with dignity, and they will be reverent. Be filial and compassionate and they will be loyal. Promote the able and teach the incompetent, and they will work positively for you’ (Cheng et al., 2004)

The above extract shows that Confucianism sets clear management expectations when seeking loyalty. It is a system that, if maintained correctly, can create a very harmonious workplace. However, in modern Korea it is sometimes seen as a flawed model because those with the power can misuse it to facilitate corruption and power abuse. Any abuse is also hard to correct because upward criticism is not allowed.
This is why the large Korean companies have tried, with limited success in most cases, to implement reform.

3.4.3 Family-like Working Environment

A knock-on effect of paternalistic leadership is the creation of a family-like ecosystem in Korean organisations. As explained earlier, every person is treated as a family member with the boss occupying the role of the parent, while the more senior staff take on the roles of older brothers. Tight family-style bonds between coworkers are usually emphasised (Choi, 1974). To cement the family-style workplace, team activities are frequently organised to create fraternal bonds between employees e.g. kimchi-making activities in early winter or hiking trips. In addition, bonuses are usually paid at special family occasions like Chuseok (the Annual Autumn Harvest Festival) and Lunar New Year (Kim and Briscoe, 1997). Within teams, staff birthday celebrations are common and colleagues often attend family events together including weddings, parents’ birthday parties, funerals and the birth of children. As a result of these interactions, the connections between colleagues become closer but sometimes resentment also grows. When the system works, coworkers feel that they belong to their organisation and are valued by those that surround them. A sense of shared responsibility builds up and all staff try to work hard for their organisation.

However, if a worker is not happy with their team or perceives that they are not being treated fairly, this system can cause another phenomenon. This is extreme repressed anger towards coworkers due to a feeling of injustice. This is so common that a specific word for it exists in Korean, called Han. Han is a contradictory concept as it includes the passive acceptance of a person’s fate, along with the intense desire to overcome it or gain revenge on those who have imposed it (Min, 2009). The feeling usually accumulates over time, partially due to the throttling effect that the family-like team environment in Korean organisations creates for those who are in bad situations. The feeling is unresolved, coiled and repressed but longs to be released. A supplementary word in Korean was also created called Hanpuli, which means the release of Han through dance, violence or alcohol consumption (Choi, 1993).
3.4.4 Hierarchical structure

Within Neo-Confucianism, a hierarchical structure is needed to sustain group and social harmony. Historically in Confucian Korea, that structure was separated into five classes and each person’s social position was determined by their class and status. Every class had a distinct set of rules and customs that had to be adhered to. No individual could move beyond the limits of their class or challenge a superior (Chung, 1997). In modern South Korea, even though the old structure no longer exists, a modified hierarchical structure still functions. This can be seen in language use, family life and in workplaces. This concept is so important that it means when two Korean people meet for the first time they must establish the hierarchy in order to communicate comfortably (Coyner and Jang, 2007). This is done by asking a series of simple questions which are sometimes seen as intrusive by non-Koreans.

Within families, each person’s status is defined primarily by their role, gender and age. In a work place, the status of an employee is dependent on their job title and then follows age, experience and educational background rules. In the majority of situations, gender is also considered to be of importance when determining an employee’s level in a workplace. Socially, age is the most important piece of information followed by education and wealth (Hofstede and Bond, 1988).

Confucius stressed that individuals who do not cause offence to their superiors are to be applauded. Confucius said: ‘A young man should serve his parents at home and be respectful to elders outside his home’. Based on Confucian texts, every Korean person should respect their elder and the authorities no matter where they are. In families, children must obey their parents while younger family members should obey their elders. At workplaces, approval processes for changes move from the bottom right to the top in Korean companies (Lee, 2002). Even small decisions with minimal risk or impact are often sent all the way up to top management for approval. A rigid organisational structure is then established based on the patriarchal-fraternal model introduced earlier.

Using this structure, decision-making processes become very centralised and authority lies on senior levels while junior members of organisations have extremely
limited freedom to make decisions (Robinson, 1996). This type of centralised command and control system was prevalent in many Korean Chaebols, and it was effectively used to execute grand visions and large-scale projects without resistance. Because of its highly centralised structure, company owners, politicians and top management are often involved in minute details of management (Park and Kim, 1992). One downside of this structure is that the decision-making and approval process often takes too long. Therefore, as the size of organisations expand, their management processes become more convoluted and efficiency is restricted.

Some of the larger Korean companies recognised this issue and attempted to implement management reform. Increased authority was delegated to the mid-management level to improve decision-making processes. However, as the majority of Korean workers grow up using this system, reform is extremely hard to implement. In a recent study, it was determined that seventy-five percent of a senior manager’s time in Korean organisations revolves around providing approvals and dealing with minor operational problems (Shim et al., 2008). In contrast, leaders of other global organisations devote the majority of their working time on strategy decisions such as brand development, budget allocation, and skill development, as these areas are considered to be more important and significant for progress (Triandis, 1995). Furthermore, within the hierarchical structure of most Korean organisations, it is almost impossible for members of teams to share dissenting viewpoints with senior management. This creates a groupthink ecosystem that appears to have the safe perception of agreement, but potentially insightful input from junior members is withheld. Exchange of opinions and ideas among members of team during a meeting is difficult if high-level senior managers are present. In Korea, no employee wants to be the person that made a manager lose face by making an inappropriate comment.
3.4.5 Importance of Family Ties and Blood-Based Succession

Family involvement in Korean corporate management is yet another area that has traditionally had strong ties to Neo-Confucianism. High-level roles were frequently held by the owner’s own family, mostly by his sons. Based on Neo-Confucianist advice, the oldest son should take responsibility for his family’s wealth and follow in his father’s footsteps by steering his family. Korean company owners, and in North Korea’s case Governments, have often used the same type of succession, as they determined that control must be retained within the family (Bae, 2002). A study conducted at the start of the 1980s found that a quarter of the presidents of large Korean companies were also the founders, nineteen percent were the sons of the founders and twenty-one percent gained promotions from inside the company. Just thirty-five percent were hired via external sources. The study concluded that family ties with leaders in the company guaranteed greater job progression opportunities (Fukuyama, 1996).

Nowadays, the majority of Korean Chaebol companies are still under the control of the founders’ families even though in some cases that control has become indirect. The founder, along with his siblings and children, often hold the key roles in the organisation. Seeing as most Korean Chaebols were set up just a generation or two ago, executive responsibility has often only been passed to a child or possibly a grandchild by now. A good example is the chairman of the Samsung Corporation, Lee Kun-Hee. He was the third-oldest son of Samsung’s founder Lee Pyong-Cho who began the business in 1938. Lee Kun-Hee also appears to be following the family tradition by gradually transferring responsibility to his son (Lim, 2003). Lee Jae-Yong, as the only son of Lee Kun-Hee, is now the chief operating officer of Samsung and he effectively runs Korea’s largest business empire with guidance from his father. Lee is also the majority shareholder in Samsung Everland, which is Korea’s biggest theme park (Forbes, 2013).

Lee Pyong-Cho also promoted other family members into key positions at Samsung and other related companies. Lee Boo-Jin, his oldest daughter, is President and CEO of the Silla high-end hotel group, and she is also the President of Samsung Everland. Lee Pyong-Cho’s oldest brother's son is also chairman of the CJ Company, a large
organisation that operates in the food, beverage and entertainment areas (Korea Times, 2012). His older sister owns the Hansol Group, which is Korea’s main paper production company and also makes electronics and telecommunications equipment. His younger sister, Lee Myung-Hee, is the chairperson of the Shinsegae Group, which is the largest retail organisation in the country.

The Hyundai Group is another example of a large company controlled by the founder’s family members. The group was founded in 1946 by Chung Ju-Yung (Sin, 2000). He had many sons and he passed parts of the business down to them as shown in the list below:

- Chung Mong-koo: Currently Chairman of the Hyundai-Kia Automotive Group. This is the second biggest company in Korea.
- Chung Mong-kun: Now the Chairman of the Hyundai Department Store Chain, This is one of the largest retail companies in the country.
- Chung Mong-woo: Committed suicide after years of apparently suffering from depression. However, his eldest son, Chung Il-Sun, is now the President of BNG Steel, a subsidiary of the Hyundai-Kia Group.
- Chung Mong-Hun: Former Chairman of the Hyundai Group. He committed suicide in August 2003 after being implicated in a scandal where money was provided to North Korea in return for summit participation. His wife Hyun Chung-Eun currently controls the Hyundai Group.
- Chung Mong-Joon: Owner of Hyundai Heavy Industries, the world's biggest shipbuilding company.

Other high profile Korean companies that have also used family based succession are the LG Group, the Hanjing Logistics Group (which is connected to Korean Air), the Lotte Group and the Ssangyong Group (Choi, 2001).
3.4.6 Gender inequality

As with many ancient systems of thought, Korean women were mostly restricted to their homes under Neo-Confucianism. Beginning at an early age, women were expected to adhere to the Confucian values of subordination and endurance. This groomed them for future positions as wives and mothers but didn’t provide the chance for them to take part in community life outside their homes (Khang and Cho, 2006). Their goal was to produce a male offspring to sustain the family lineage and their principle role in society was only to serve men. A well-known Confucian saying explains, ‘It is a virtue if a woman has no ability’. This means that responsibility for earning money for the family lies with the husband while women should remain in their homes to take care of domestic issues and support their children’s educational needs (Sung, 2003). This feature from Confucian teaching still has deep roots in many Korean families, especially with older generations. The expectation is that women should prioritise the needs of their family instead of their careers, especially when they get married and have children.

In modern Korea, a woman’s place in society is still frequently restricted by these expectations. Some women have been successful in the business world but it is still an exception rather than the rule. Women’s jobs in companies are still often restricted to certain positions like secretarial or general administrative work (Sen, 2001). Confucius said: ‘Girls and inferior men are hard to raise. If you get familiar with them, they lose their humility; if you are distant, they resent it’. In a 2010 study, South Korea had the largest pay disparity in the OECD between men and women at 39% (OECD, 2010). Furthermore, only 4.7% of senior executives at Korean organisations with over 1,000 employees were women, in comparison to 39.5% in Norway and 15.7% in the US.
3.5 Flaws of Confucianism

3.5.1 Rigid Communication Rules

The influence of Confucianism is also ever-present in the rules of the Korean language. Traditionally, when talking or writing about someone who is superior in status, people utilise certain nouns or verb-endings to infer the persons’ superiority (Sohn, 1999). As explained in section 3.4.2, someone is superior in status if they are older, a manager, a teacher or a customer. Conversely, a person is equal or inferior if they are younger, a student or an employee. In the Korean language, there are seven verb speech levels, and each of the levels has a distinct range of verb endings, which communicate the level of formality of an interaction. The top six levels are usually grouped and called Jondaenmal, and the lowest level is known as Banmal in Korean. Banmal is considered a serious insult if it is used in the wrong situation (Song, 2005).

Except for close friends, it is not common for Korean adults to address others using only their names. For example, the Korean word for ‘you’ is not common because relationship descriptions are used instead. For a person named Ji-Sae: Ji-Sae yung (older brother), Ji-Sae nuna (older sister), Ji-Sae sunbae (elder classmate) would be appropriate (Sohn 2006). If there is no direct relationship between the two people, then a person’s social position can be used. Korean speakers use words like Doctor, Chairman, Professor or Lawyer. Finally, if none of the above are suitable, Korean speakers use general honorifics like the Korean words for ‘elder’ or ‘teacher’ (Chang, 1996).

One of the criticisms often leveled at Neo-Confucianism is that it stifles open communication by creating a strict framework that does not allow people to speak their minds freely. The layers of required honorifics and levels in the Korean language combined with the need to accept a role under Neo-Confucianism means that the open exchange of ideas can be very difficult. In some situations even mild criticism is completely unacceptable. For example, questioning an older teacher in Korea is considered a grave insult. These language expectations also lead to situations where a lot of communication must be implied, as it cannot be said directly. This can often result in misunderstandings and messages not being understood as they were
meant. This problem becomes very prevalent when dealing with International Communication. If something is translated directly from Korean to English, it will sometimes become indiscernible, as the implied meaning does not get carried over.

3.5.2 Over-attention to procedures

As explained in Section 3.3.2, Neo-Confucianism really began to dominate Korea during the Joseon Dynasty. This was when Korean people started to live their everyday lives using Neo-Confucian mannerisms. The most important Confucian book in this context is Sohak, which translates as *The Book of Small Learning*. Most of what is considered traditional Korean manners (e.g. not eating until the oldest takes the first bite) comes from Sohak. The level of detail required by Sohak is extensive. Even for apparently simple tasks like what a son must do to serve his parents correctly in the morning, there are very thorough instructions.

Another criticism that is often made of Confucianism is that it over-emphasises the need to follow rules exactly, and does not allow enough room for flexibility. This can lead to situations where bureaucratic red tape creates huge barriers and inefficient procedures. It can also cause massive problems when a situation occurs that is not covered by documented procedures and requirements. It can cause situations where anything outside of the exact rules is just immediately disregarded or rejected without consideration.

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4 ‘When the rooster first crows, all must wash their face, brush their teeth, comb their hair, cover the hair with black silk, put on a hairpin, tie the hair with silk to decorate the topknot, straighten all stray hair, wear a hat and tie the strap, wear dark clothes, wear an overcoat, wear a large belt, put on the belt decoration, wear the things to be used for the day on the belt, wear leggings, wear the shoes and tie the shoes.’ (Ch’oe et al 2000: p67)
3.5.3 Over-emphasis on Rote-Memorisation

As explained in Section 3.3.2, one of the main indicators of a scholar’s success in traditional Confucianism was how well they were able to recite the Chinese classic texts. These old texts are no longer a part of the Korean education system but the idea that information should be memorised and regurgitated is still very important in Korean classrooms. It can end up in a situation where education is reduced to a list of facts, figures and dates with no context. This has been highlighted as a major problem in Korean education and attempts have been made to introduce and encourage more critical thinking. However, despite this being acknowledged as a problem, Korea has still become one of the most innovative countries in the world, especially in the technology area.

3.5.4 Sexism

Lots of Korean women with advanced education and ability become frustrated when they try to search for suitable positions in organisations. After marriage, the situation often becomes even worse. Korean Managers frequently hesitate to give them jobs. The perception is that women who are married often need time off and they can’t concentrate on their jobs because they are also mothers. Therefore, a large proportion of women have to give up their careers to take care of their children and their spouse. Furthermore, women also often get lower pay in comparison to their male coworkers. This is a problem that is frequently attributed to Neo-Confucianism and is the source of a lot of the criticism aimed at the system.

3.5.5 Importance of Standardised exams

The reliance on the use of standardised exams for assessment does not reside solely in the domain of education. The majority of large Korean companies also use exams as an early candidate screening stage in recruitment especially for entry-level and graduate positions. An example of this is the custom designed Samsung Aptitude Test (SSAT) that the company used as an applicant assessment system (Samsung, 2013). This exam spawned a range of Hagwon Schools and books offering exam techniques
to help pass the test and get a chance at the interview stage. Another way that standardised testing is used in employment is by way of professional licensing. In South Korea, Government-approved licenses are required in order to work in a diverse range of fields including school teaching, real estate sales, tour guide roles and nutritionist specialists (KRIVET, 2007). These licenses are all obtained by passing exams set by a central professional body overseen by the Government.

3.6 How Neo-Confucianism influences Education

3.6.1 Introduction

Confucianism in Korea has been intrinsically connected to education all the way back through its history. It provided the foundation for the meritocracy exam system that determined who would make progress in Government as early as the 10th Century. This section begins with a look at the most important exam in most Korean people’s lives, the College Scholastic Ability Test (CSAT). It shows the pivotal role that education and exams take in Korea. From there, Korea’s relative ranking in education studies will be analysed showing how central education is in Korea and the social expectations associated with that. Next, this section will cover ICT education initiatives in Korea beginning with adult schemes created by the Government before moving on to plans at schools. This section finishes with a look at the ICT learning outcomes associated with these initiatives.

3.6.2 The CSAT exam and the SKY Universities

The importance of education when selecting leaders is still prevalent in South Korea today. As explained in Section 3.2.2, Confucianism suggests there is a proper way of doing things, so this lends itself to a collectively aligned aspiration system. In Korea, this centres around the CSAT University entrance exam and the desire to enter one of the SKY Universities (Seoul National University, Korea University or Yonsei University). The CSAT exam is a one-day exam taken in high school that determines which university a student can enter (Jones, 2013). For many South Korean students,
this is the most important day of their lives because their entire career can hinge on their ability to enter a top University. The leading South Korean University at the moment is Seoul National University in most study areas. A degree from this University opens a lot of doors in Korea. For example, even though appointments are based on open exams, two thirds of South Korean judges, forty percent of high-ranking government officials and over half of diplomats are SNU graduates (MEST, 2010). This means that competition is fierce to get into Seoul National University. A huge industry has been created to try and provide exam techniques for achieving a higher CSAT score and getting a place at SNU (Kim, 2010).

The region where this phenomenon has become most apparent is in the Gangnam district of Seoul. In 2011, 65.7% of new students at SNU came from the neighbouring Gangnam, Seocho and Songpa districts south of the Han River. Affluent families from all over Korea try to relocate their children to Gangnam in order to send them to the schools and evening cram-schools (known as Hagwons in Korea) in that area. They believe this will give their children a better chance of achieving a high score on the CSAT exam, and then get a place in SNU or one of the other SKY Universities guaranteeing them good career prospects (Bae et al, 2010). The CSAT ensured that corruption was minimised in the college application process, but it also created an extreme make-or-break exam for students and a huge business for any education establishment with a proven track record for good results.

This situation has created intense pressure and competition in South Korean education. According to the Korean Ministry of Education, Science and Technology, 74% of South Korean students now take additional after school classes at Hagwons to improve their test scores. Furthermore, in a survey complied by the Korean Ministry of Education, Science and Technology (2011), the top reason given for private tutoring and extra evening classes was that the name of the university one graduates from is important for future job prospects. The second is that special purpose high schools select students based primarily on their test scores.
When South Korea’s economy developed suddenly in the 1960s, the country’s education system also developed in parallel with it. As seen in the previous section, the University that a student graduates from can determine their entire career trajectory. The percentage of students that go on to tertiary education is very high in Korea. In a 2013 study, Korea had the second highest proportion of adults globally in higher education behind Canada (UN, 2013). The country also has the highest percentage among the OECD countries in terms of the percentage of 25-34 year-olds that have attained a tertiary level of education (OECD, 2013). In terms of literacy, Korea has a 99% literacy rate (the same as Ireland) and sits among the list of advanced countries near the top of the list (UNDP, 2013).

South Korea’s position at the top end of international Education Tables is a relatively new phenomenon. Korea now sits in first place globally based on the proportion of teenagers who receive upper-secondary education with over 98% reaching this level (OECD, 2013). However, in the older 45-54 age group, South Korea is below some western European countries. An interesting note on education in Korea is that even at secondary level much of the spending on education comes from the private sector. In the 2013 OECD Education at a glance study (2013), South Korea’s public education spending on per student basis was below average within the group of OECD member nations.

However, private sector education spending is over double the OECD average. This is explained by the fact that most Korean students top up their public school education with private after-school Hagwon schools in the evenings to try and get academic advantages in Korea’s hyper-competitive education system. For example, many Korean secondary students attend ICT Hagwons outside of regular schools hours to develop their computing skills. This may also be a factor in Korea’s positioning at the top of international ICT usage and skills rankings as will be seen in the next chapter.

The Korean Government has tried to address the Hagwon problem by increasing spending on education. For example, the country’s total spending on education, including public and private schools, as a share of GDP was the third highest in the
OECD area at 8.0% in 2012, even before taking account of outlays for private and after-school instruction (OECD, 2013).

3.6.4 Adult ICT Education in Korea

In 1998, the concept of e-Literacy was emphasised at the inauguration speech of incoming President Kim Dae Jung. He outlined his aim to turn Korea in a country where people can use computers better than anywhere else in the world. This was the precursor to the launch of the Cyber Korea 21 initiative. This contained a number of specific goals (Yun et al, 2002).

- Implementation of ICT education schemes for the entire population
- Introduction of a certification system for verifying computer skills
- Realisation of a one person-one PC environment
- Development of Internet plaza services
- Elimination of the digital divide
- The realisation of a sound information culture

Computer skills education was chosen as the core focus of the Cyber Korea 21 plan. The project aimed to provide education to 25 million people (11 million in the public sector and 14 million in the private sector) by creating institutes to deliver computer skills education, while installing computer education rooms in public or Government institutions - including schools, military units and post offices (KISDI, 2005). The plans included installation of Internet plazas at post offices or in remote rural areas where access to high-speed fixed lines was restricted or nonexistent; supplying free PCs to 50,000 students from low-income households; and developing devices and software for the physically disabled. In addition, the plan also sought to improve ICT education for farmers, fishermen, senior citizens and other groups that may have been previously alienated from information services. Another target group for ICT education was housewives. The Government wanted to encourage housewives back into the job market through free ICT training courses with two million places. All the national ICT education programs were carried out with budgetary funds allocated by the central and local Governments (Suh and Chen, 2007).
This education plan began in 2000 aiming to educate 10 million people by 2003 but the initiative was so popular that 13.8 million people took part by just June 2002. After assessing the effectiveness of the program, the Government determined that it did promote use of ICT equipment but mostly for leisure and games. They decided that the next campaign should focus on application software skills that could be used in practical work environments. Thus, the second phase plan for ICT education began in July 2002 until 2004. This differentiated the learning into levels (KISDI, 2005):

1. Basic PC and Internet skills education for 1.5 million people considered to be alienated from ICT including physically disabled people and senior citizens.
2. The provision of practical computers skills education for 3.5 million people to enable them to use ICTs in their daily business or work.

As part of this phase, 5,024,053 people took practical computer skills courses and 4,053,034 people received basic computer skills courses. The number was twice the target figure and it was delivered six months ahead of schedule.

Based on participation, these adult education programs were a huge success. Each course exceeded their attendance targets and this allowed the programs to expand and extend their reach. These types of adult ICT education projects have now become a part of Korea’s social fabric and they are one of the reasons why the technology usage statistics are so high in the country as we will see in the next chapter.
3.6.5 ICT education in Schools

Technology has been a part of the Korean school system since the 1980s but the first move to formally include ICT in education took place in 1995. This was when the Plan for the Renovation of Education was published by the Korean Ministry of Education with the aim of introducing ICT into classrooms. As of 2013, this plan has now reached its fourth stage (Bacsich, 2013).

In 2012, a new initiative was announced known as the SMART education project. This stands for:

S = Self-directed
M = Motivated
A = Adaptation
R = Resources
T = Technology

The main goal of the program is to digitise the entire school curriculum by 2015. According to research conducted by the Korea Communications Commission, 67% of young Koreans between the ages of 5 and 19 use smartphones regularly and these figures are rising quickly. The SMART project includes the creation of digital textbooks, online evaluation systems and the use of convergent touchscreen mobile devices to consume and create content (Chosun Ilbo, 2011). These devices will communicate with Cloud-Based virtual learning environments through secure wireless networks that service entire school campuses. All of these systems are being developed by domestic Korean companies. The budget for hardware provision alone is US$2.4 billion (Shin, 2011).

The aim is that every middle and high school student will study in a 1:1 device classroom (i.e. each student will have a personal device). Students from low-income families will be provided with free devices. In order to test the idea of digital textbooks, 130 schools were selected in 2007 to assess the effectiveness of the new system. The Ministry of Education estimated that e-textbooks will be 50-60% cheaper than traditional hard-copy textbooks (Bacsich, 2013). It will also greatly
reduce the dependence on handouts and printing. It is also hoped that the increased access to information though mobile devices will reduce the educational focus on rote-memorisation by enabling interactive learning patterns. This has been flagged as a problem in Korean education for many years and was discussed as a flaw of Confucianism in Section 3.5.3 of this Chapter.

3.6.6 ICT Learning outcomes

This focus on education and exam preparation has resulted in Korea having very good test scores in international comparison studies. In the most recent Programme for International Student Assessment study conducted by the OECD, Korea ranked first among OECD countries in mathematics and reading, and third in science. Moreover, Korea’s overall performance in PISA has improved since 2006, when it was 11th in science, fourth in mathematics and first in reading (OECD, 2011). Since 2000, Korea has doubled its share of students demonstrating excellence in reading literacy: 13% of its students were proficient at level five or above compared to an OECD average of 8% (OECD, 2009). In an extension to the original PISA study, 15-year-old students were tested to see how well they could use computers and the Internet to learn. Their task was to evaluate information on the Internet, access its credibility and navigate webpages to test their digital reading performance. In this survey Korea came in first place out of the 16 countries. Korea was one of a small group of countries where the students performed significantly better in digital reading than print (OECD, 2011).

Another indicator that can be used to assess learning outcomes in ICT is a new metric introduced by the ITU in 2013. This is the idea of a ‘Digital Native’. According to the ITU (2013), a Digital Native is an individual who has used the Internet for five or more years. In this study Korea had the highest percentage of young people (15-24 years old) classified as Digital Natives in the world with a figure of 99.6%. This placed them just ahead of Japan at 99.5% followed by Finland, Denmark and the Netherlands. The ITU directly attributes Korea’s high score in this area to the emphasis placed on technology and ICT in education. Another important fact highlighted by this study is that Korea has a smaller digital divide than most countries with more than 84% of the total population, both young and old, using the Internet.
This shows that both the adult and school ICT initiatives introduced in the Section 3.6.4 can be considered to have been effective in this context.

3.7 Conclusion

Based on the literature presented in this Chapter, Neo-Confucianism leads to many contradictions within Korean society. It went from being central to the running of Korean Kingdoms to virtually disappearing from its formal role within Korean institutions. Most of the Neo-Confucian academies have now been closed or converted into tourist sites. The majority of young Korean people would not be able to quote many of the sayings from Analects. It is no longer a major subject in schools and people do not often talk or refer to Neo-Confucian advice when making decisions. Men only wear traditional Neo-Confucian clothing for special events. However, despite its decline in official use, Neo-Confucianism is still everywhere in Korea. It is a part of the Korean language and it is central to how people form relationships and communicate. For example, it sets certain honorific language expectations that can cause the gravest insult between Korean people if they are not adhered to.

Neo-Confucianism offers a number of positive and negative features when it comes to business. When Korean people meet, they ask each other a number of standard questions so that they know how to communicate and categorise each other. This creates a framework that often allows individuals and teams to work together more quickly as everybody knows their roles as soon as these formalities take place. The system also places a strong emphasis on harmony and social justice. This can lessen conflict in business interactions and encourage people to work together toward a common aim.

However, there are also some negative aspects of Neo-Confucianism as were highlighted in this Chapter. It often stifles the suggestion of ideas or improvements within organisations because people feel unable to contradict the decisions of their seniors. This can sometimes block creativity and innovation in Korea. It also provides a serious glass ceiling for women that Korean people have not yet found a way to
overcome. Furthermore, the system lends itself to excessive nepotism as seen in the large Korean Chaebol businesses. In this context of this research, its biggest drawback is how to accommodate people and products that do not fit into the system.

When an international organisation opens within the Korean market, they initially have no role in Korea’s social structure and are viewed as outsiders. This often causes confusion for both sides when dealing with local businesses and Government because the new operation is immediately perceived as not having a defined status in Korea. This can lead to suspicion and sometimes even resistance. The resistance can be especially bad if it is considered to be operating in competition with a Korean business or organisation. This sometimes results in a direct backlash at a local or Government level as will be presented in Chapters 6 and 8.

As shown in Section 2.3.2, Korea spent many centuries in international isolation during the Joseon Empire time. When the Korean rulers were finally forced to open up, they were so far behind in technology that they became easy targets for colonisation. This left Korea with a suspicion of the intentions of foreign arrivals arriving on their shores. When this suspicion is combined with the fact than these arrivals also do not fit in anywhere in the Korean Social System, it creates a strong 'us and them' mentality. This characteristic has manifested itself in many ways but the important one in this research is that it provided the motivation to protect local business from foreign imports until they were strong enough to stand alone.

Perhaps the area where the influence of Neo-Confucianism remains most prevalent in modern Korea is in education. Success and status in the country is determined by a rigid educational meritocracy that is largely dependent on a single exam in high school. This can be seen as a legacy of Neo-Confucianism where merit based exams always determined a persons place in the civil service. However, there is also a peripheral positive effect stemming from this because education is considered to be of the utmost importance in Korea. In the ICT area, this has resulted in education programs being extremely well attended and popular. In turn, this has helped push Korea to the top of technology usage charts as the fears and barriers associated with technology in other countries have been removed by education. This can be seen as a very positive effect coming from the Neo-Confucian emphasis on education.
Chapter 4

Chapter 4: Literature Review on ICT Business in South Korea & Research Methodology
Chapter 4: Overview of ICT Business in South Korea & Research Methodology

4.1 Introduction

South Korea’s ICT business has been an integral part of the country’s economy for over 10 years now. It is now considered to be a mature business area but it is still dynamic because the business environment is constantly changing. In this Chapter, the characteristics of Korea’s ICT business will be introduced. In the past, Korea’s ICT strengths lay in the areas of assembly and manufacturing especially of components, telecommunications equipment and semiconductors. The key period for the development of ICT in Korea was in the years directly following the IMF crisis in 1997. When other business areas were struggling and restructuring, ICT businesses expanded rapidly taking them to the forefront of the Nation’s economy.

However, now there is a shift taking place, with a growing interest both domestically and internationally in ICT services and software products from Korea. This shift will be explored in this Chapter. First, the Government’s role in the ICT development will be presented as discussed in the literature. As seen in Section 2.6.5, the Korean Government were historically very involved in business and they steered the direction of growth strongly in many industries. ICT is no exception in this regard and in this Chapter, Section 4.2.2 will be devoted to showing how heavily involved the Government was in the ICT area.

Next, an overview of the current ICT business situation in Korea will be presented as discussed in the literature. This serves as an illustration of what this business area has become and where it might go. Then, a section on the global position of Korea when it comes to ICT will be presented. This will pinpoint the ICT strengths and weaknesses of Korea when compared to other high-income countries. This provides an important foundation for the case studies that will be presented later.

From here, this Chapter will then move on to the research methodology employed in this thesis. This overview of Korea’s ICT sector is presented both by descriptive
statistics and, through a discussion of the relevant literature, informs and determines the methodology needed in order to adequately analyse the growth and trajectory of the area. This section begins by explaining why a cross-discipline study was selected and more specifically why interdisciplinarity is the most appropriate choice. Then, the need for a historical overview is presented to explain how path dependency was evident in Korea’s economic development decisions. Finally, the use of case studies will be discussed showing how they provide a macro-meso view of the ICT area that provides practical examples of the macro-level theories introduced earlier in the thesis.

4.2 ICT Business

4.2.1 Definition of ICT Business

From a business perspective, the Information Technology Association of America defines Information Technology (I.T) as ‘the design, development, application, implementation, support or management of computer-based information systems’ (Daintith, 2009: p23). Information and Communications Technology (ICT) is a broader extension to I.T that includes telecommunications equipment and convergent technology products (ADB, 2009). This means that any consumer product or service that has a function from the above definition as its core revenue-generating product or brand can be considered to be an ICT Business. ICT products are now used in most businesses and the majority of users in their daily lives. However, a distinction can be drawn between businesses that simply use ICT and those that derive revenue directly from business activity relating to the production, sales and distribution of ICT products. In this study when a reference is made to ICT business, the implication is that the business falls into the latter category, and their main revenue-generating product is from the ICT area.

In this thesis, we also consider the use of ICT by Korean customers. This involves a broader definition that does not suggest the end user development of ICT, but instead means just the use and early acceptance of ICT products from business. In order to increase revenue from ICT business, countries need to nurture a customer base that
feels the devices and systems are relevant and useful enough to merit a purchase. The 
Korean Government has assisted in this process through the use of educational 
programs and by making information and interactions possible thought ICT devices, 
as we will see in the next sections.

4.2.2 Development and Government involvement in Korean ICT Business

The earliest example of ICT business activity in South Korea was when several large 
companies established semiconductor assembly factories in the country in the early 
1960s. The companies that ran these operations were Signetics, Fairchild, Motorola, 
Control Data, AMI and Toshiba. Then, Komi Electronics became the first Korean 
company in the semiconductor industry when they began assembling transistors in 
1965 (Business Korea, 2013). Samsung also entered the area by taking over the 
former state-owned operation, Korea Semiconductor in 1974.

As seen in Section 2.7.2, South Korea began to move from heavier industries into 
consumer electronics in the 1980s. The fifth five-year plan (1982-86) by the 
Government was an essential part of this shift as it clearly outlined this change of 
strategy. For example in 1983 Korea, along with the U.S and Japan, were the only 
countries with the technical capabilities required to make high density 64K DRAM 
memory chips (Allan, 2001). Throughout the 1980s, Korea was seen as a country that 
excelled in reverse engineering and low cost manufacturing but in the 1990s they 
started to be seen as innovators (Kim et al., 2013). One example of this was in 1994 
when Samsung unveiled the world’s first 256K-DRAM chip ahead of both Japan and 
the U.S (Kim, 1997). The three ICT areas that Korea was strong in during the late 
1980s and 1990s were I.T components, communication equipment and 
semiconductors (Lee et al., 2009). A gradual shift towards fully assembled products 
started to emerge as the economy progressed. This was also the time when the Korean 
Government began work on digitising public service data including citizen 
information, property registrations, vehicle ownership and economic statistics 
(Choung et al, 2012). This project began in 1987 and was completed in 1994 (MIC, 
2006).
It was in the mid-late 1990s when ICT really started to become pivotal to the Korean economy. In the seventh five-year economic plan (1992-96), ICT was flagged as one of the key development areas. One important decision the Korean Government took at this time was to establish an electronic stock market to encourage the growth of technical companies and startups (Hung et al., 2012). They modelled this new body on the American NASDAQ and called it KOSDAQ (KFIA, 2010). In 2013, the volume traded on KOSDAQ exceeded that of the Korean Stock Exchange, illustrating its success. The Government also sought to stimulate ICT growth by creating tax incentives including a 50% tax deduction for R&D expenses, along with the exemption of income tax on royalties from on-the-job inventions (Jung et al, 2013). These incentives were allocated by a new Informatisation Promotion Fund set up to manage financial resources for Informatisation and ICT Research and Development (R&D). Another significant step was the creation of the Ministry of Information and Communication in 1994 (KISDI, 2005). This Government body was then given responsibility for the creation of a National ICT policy.

In 1996, the telecommunications, computers, computer peripherals, and software services sectors of the economy accounted for 8.1% of Korea’s GDP (Shin and Park, 2007). This was the year before the 1997 IMF crisis when many Korean companies had severe financial difficulties. It was directly after this crisis when ICT really rose in importance in South Korea’s economy. While other businesses were struggling, the ICT share of Korea’s GDP jumped from 7.7% in 1997 to 15.3% in 2000 (Kim, 2009). Furthermore, the percentage of the workforce employed in these industries grew from 4.24% in 1995 to 6.04% in 2000. In a paper analysing the events directly after the 1997 IMF crisis, Lee Ho-Chul and Mary McNulty (2002) of the World Bank, directly attributed Korea’s quick recovery to the growth of ICT Business and they concluded that this area was steered by both the Government and the private sector.

In 2001, the Korean Government introduced two important acts; The E-Government act was put in place to begin using the Internet for as many functions as possible. The second move was establishing the act on resolving the digital divide, which tied-in with the Cyber 21 education project. The growth trend continued into the next decade with ICT business becoming the main engine of economic growth in South Korea. Specifically, in one research paper (Vu, 2004), the ICT Hardware Industry was
pinpointed as the predominant driver of economic growth and this was attributed to the Korean Government’s strategic support. This was especially apparent in 2003-2005 where it consisted of close to half of all growth. These percentages are illustrated in Table 4.1 below, where research conducted by Suh and Chen (2007) showed the emergence of the ICT area as an engine of growth. The percentages shown in the table were calculated by taking the overall economic growth figure and separating it by industry, to identify the share attributable to ICT.
<table>
<thead>
<tr>
<th>Year</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>26.3</td>
</tr>
<tr>
<td>2002</td>
<td>25.7</td>
</tr>
<tr>
<td>2003</td>
<td>51.6</td>
</tr>
<tr>
<td>2004</td>
<td>46.8</td>
</tr>
<tr>
<td>2005</td>
<td>47.5</td>
</tr>
</tbody>
</table>

Table 4.1. Percentage of total economic growth in Korea due to ICT business  
(Source: Suh and Chen, 2007 p20)

To put the ICT growth into context, the figures can be put alongside overall economic growth in South Korea. In Figure 4.1 below, we can see how economic growth rose and fell throughout the last 10 years but ICT as a percentage of GDP continued on a steady upward trajectory.

Fig. 4.1 Economic Growth & ICT as a percentage of GDP in South Korea (Data Source: ITSTAT, 2013)
Another example of the crucial role of ICT was its role in Korea’s trade surplus. In 2007, the ICT trade surplus was US$60.3 billion accounting for more than 90% of Korea’s total surplus. By 2010, the ICT share of the trade surplus was 2.3 times higher than any other industry in Korea (NSTC, 2010).

This growth was supported by the Presidential Committee on Government Innovation, which was set up in 2003. Private companies, especially the large Chaebols like Samsung, Hyundai and LG, dominated R&D ICT funding in Korea between 2003 and 2013. They consistently spent 4-5 times the amount the Government spent on ICT R&D during this period (ITSTAT, 2013). Most of this was focused on the manufacturing of ICT equipment and electronic components, as it was their core business. Less than 10% was on ICT services. However, even though the Government spending on ICT R&D was a fraction of the total, the industry was still the biggest recipient of public funding. Each year from 2004-2013, ICT received the greatest share of public R&D financing with between 15 and 20% of the total allocated annually (MEST, 2013).

In global terms, Korea ranks very highly when the total spend on ICT R&D is compared. In 2012, the ICT industries in Korea were allocated 53.1% of total research and development funds, placing the country fourth globally among high-economy countries (Elles, 2013). This has led to relatively high patent registration statistics. In the ICT area, Korea filed 13% of the total, above Japan but just below the USA (WIPO, 2012). This also placed Korea ahead of any European countries suggesting that the high R&D expenditure is producing innovation at a good return. Another indicator was a study conducted by Bloomberg (2013) on the most innovative countries in the world. The USA was first and Korea came in second. However, Korea took first place in the number of patents registered per capita.

In summary, this section shows that the Korean Government played an important role in the rise of ICT’s prominence in Korea’s economy. The area is dominated by a group of large hardware companies that worked closely with the Government to stimulate growth. There are now signs that small and medium enterprises (SMEs) are starting to emerge in the mobile apps area and other new ICT niches are appearing.
due to product convergence. Some evidence of this will be presented in the next section.

4.2.3 Current status of South Korea’s ICT Business

South Korea is an export-orientated country and the ICT business is a central part of that. The recent global slump in consumer demand from high-income countries affected ICT exports. The reductions have been offset somewhat by a rise in demand from China and other emerging economies as Korea has done well in those markets recently, but the overall picture is that ICT growth is quite flat overall. Another trend that is starting to affect Korea is the movement of manufacturing overseas to reduce staff costs. Certain large Korean companies are following the patterns of manufacturers in Europe and North America where they relocate to countries that have lower wages for the assembly of ICT products.

According to official Korean Government statistics, production in the ICT industry decreased by almost 1.4% in 2012 compared to a year earlier. Furthermore, exports of ICT equipment declined 3.9% year on year to US$131.5 billion. This was mostly attributed to poor sales figures in North America and Europe. 2013 appeared to be a slightly better year however. ICT equipment exports were projected to grow by 1.9% in 2013 to US$134 billion. Exports of mobile devices are essential to the Korean economy as the domestic market is at saturation point. In 2012, penetration of Mobile Devices reached 107% in Korea so companies are dependent on selling product upgrades like 4G LTE handsets to sustain sales (NIA, 2013).

One area that is growing domestically in Korea is the IT Services associated with cloud-based Internet Data Centers (IDCs). So far, attempts to get foreign direct investment in this area has had very limited success, but growth in cloud-based services for Korean customers resulted in an almost 8% increase in 2013. This can also be linked to increased consumer activity in the online games area. Revenue in this area increased 11.3% to US$9.735 million in 2012, and it was also above 11% in 2013 (ITSTAT, 2013). It is still a relatively small business area but it may become more significant in the future. Korea’s traditional stronghold of semiconductors is also going through a major adjustment at the moment. Exports of memory
semiconductors dropped 20.6% in 2012 but this has been offset by a growth of 25% in system semiconductor exports. The net result is an increase of 0.6% for exports in the area to US$91.3 billion. Again, this area showed signs of being positive in 2013 with growth of almost 3% forecasted (ITSTAT, 2013).

An area that has often been flagged as a weakness in Korea is the export of software when games are excluded. However, this is now an area that is growing quickly. One example is that Korean apps are selling well on mobile devices internationally. One advantage that software makers in Korea have now is that Samsung is now a global leader in mobile devices so they can get an inside track on emerging hardware and then develop software for new models earlier than companies in other countries. Exports of software in 2012 increased by 26% over the previous year to US$1.79 billion. Another segment in this area that is going well is the sales of tailored e-Government solutions by IT service providers. In 2013, it looks as if software exports will increase again by close to 14% (ITSTAT, 2013).

4.3 Importance of Korea’s ICT industry to the world

4.3.1 E-Government Development Index

The index that most Governments reference when seeking to benchmark the quality of their services is the E-Government Development Index. The United Nations Department of Economic and Social Affairs (DESA) publishes this report every second year. The final score is a composite index measuring the willingness and capacity of national administrations to use online and mobile technology. It consists of three sub-indices; web measurement index, telecommunications infrastructure index and human capital index. In 2008 Korea was ranked 6th from 182 countries. By 2012, Korea was ranked first from 190 countries. In addition, Korea got the number one spot in the Web Measurement Index for E-Government (U.N, 2012). This shows how much the Korea Government has embraced the use of ICT for Government functions.
Another metric that countries use as a benchmark is the *Networked Readiness Index* (NRI). This report is published by the World Economic Forum (WEF) on an annual basis. It measures how much each country uses ICT to improve competitiveness and assesses how much innovation and new technology development influences productivity improvement and development. In 2012, the report underwent a major restructuring and now it contains 53 indicators across four sub-indexes: environment, readiness, usage and impact (WEF, 2012).

### A Summary of Korea’s ICT Weaknesses and Strengths

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Ranking</th>
<th>Weaknesses</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to enforce a contract</td>
<td>3rd</td>
<td>Judicial Independence</td>
<td>69th</td>
</tr>
<tr>
<td>Percentage of households with internet access</td>
<td>1st</td>
<td>Efficiency of legal system in challenging regulations</td>
<td>97th</td>
</tr>
<tr>
<td>E-participation index</td>
<td>1st</td>
<td>Venture capital availability</td>
<td>100th</td>
</tr>
<tr>
<td>Government online service areas</td>
<td>1st</td>
<td>Effectiveness of law-making bodies</td>
<td>123rd</td>
</tr>
<tr>
<td>Individual Usage</td>
<td>2nd</td>
<td>Affordability of tariffs for business</td>
<td>70th</td>
</tr>
<tr>
<td>Government Usage</td>
<td>1st</td>
<td>Efficiency of legal system in settling disputes</td>
<td>84th</td>
</tr>
<tr>
<td>Impact of ICT on new products and services</td>
<td>2nd</td>
<td>Internet and telephony sectors competition index</td>
<td>79th</td>
</tr>
<tr>
<td>Social Impact</td>
<td>1st</td>
<td>Mobile cellular tariffs</td>
<td>84th</td>
</tr>
<tr>
<td>Extent of business Internet use</td>
<td>2nd</td>
<td>FDI and technology transfer</td>
<td>83rd</td>
</tr>
</tbody>
</table>

Table 4.2 Korea’s ICT Weaknesses and Strengths according to the NRI study (Source: WEF, 2012)
Table 4.2 above is a summary of a group of metrics in which Korea scored low or high scores. The set of metrics in which Korea scored well contains a number of usage and infrastructure items. This is suggestive of a country where ICT is a key part of people’s lives and where they have managed to bridge the digital divide effectively. The high ranking in the availability of Government services correlates with the E-Government Development Index results displayed in Section 4.3.1.

However, this table also shows that Korea does have some weaknesses when it comes to ICT. The efficiency of the legal system is flagged twice as a problem. Also, venture capital appears on the list with a low ranking. This may be because Korea is so dominated by the huge Chaebol companies that it sometimes makes it hard for ICT enterprises to get going. In the context of this study, the weak foreign direct investment (FDI) and tariff scores are significant. The scores show that it difficult for international companies to break into the Korean market and this is due to barriers associated with Korea’s history and social system. These metrics support these assertions because of Korea’s very low ranking compared to other countries. The fact that the low ranking is in contrast with very high rankings in other areas suggests a specific problem rather than the general weakness of the industry.

4.3.3 Measuring the Information Society

South Korea’s economic status is only the tip of the iceberg in terms of its importance to the International ICT industry. Its real significance can be seen when focusing on how its technological profile compares to other nations on a global scale. One indicator is the annual ‘Measuring the Information Society’ study carried out by the International Telecommunications Union (ITU, 2013)⁵.

In their 2013 report, the ITU captured and ranked the level of ICT development of 152 economies worldwide and compared the progress they made over the previous

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⁵ The ITU is the United Nations agency that conducts research on Information and Communication Technologies (ICTs). This agency regularly publishes statistics comparing ICT data from countries around the world.
year. From this data, the ITU created an ICT Development index (IDI). The IDI is a composite index that condenses 11 indicators into a single benchmark score to assess and track developments in ICT across countries (ITU, 2012). The first set of IDI statistics were generated in 2008, and published in 2009, as a response to international requests to the U.N for a standardised benchmark system. The final score is an aggregation of three sub-indices; ICT Access, ICT Use and ICT Skills.

In both the 2011 and 2010 studies, the number one ranked country in the world was South Korea. Aside from Korea, the only other Asian Entry in the top 10 for 2011 was Japan, which lay in eighth place. The remainder of the top 10 countries all came from Western Europe. Some of the world’s economic giants lay a little further down the list. The USA was 15th, Germany was in 16th place and China appeared in 78th. By comparison, Ireland popped up in 20th, close to the midpoint on the EU rankings. A tabularised summary of the scores can be seen in Table 4.3 below.
# Selected country rankings from the 2012 ICT Development Index

<table>
<thead>
<tr>
<th>Economy</th>
<th>2012 Rank</th>
<th>2011 IDI Score</th>
<th>2011 Rank</th>
<th>2011 IDI Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea (Rep.)</td>
<td>1</td>
<td>8.57</td>
<td>1</td>
<td>8.51</td>
</tr>
<tr>
<td>Sweden</td>
<td>2</td>
<td>8.45</td>
<td>2</td>
<td>8.41</td>
</tr>
<tr>
<td>Iceland</td>
<td>3</td>
<td>8.36</td>
<td>4</td>
<td>8.12</td>
</tr>
<tr>
<td>Denmark</td>
<td>4</td>
<td>8.35</td>
<td>3</td>
<td>8.18</td>
</tr>
<tr>
<td>Finland</td>
<td>5</td>
<td>8.24</td>
<td>5</td>
<td>7.99</td>
</tr>
<tr>
<td>Norway</td>
<td>6</td>
<td>8.13</td>
<td>6</td>
<td>7.97</td>
</tr>
<tr>
<td>Netherlands</td>
<td>7</td>
<td>8.00</td>
<td>7</td>
<td>7.85</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>8</td>
<td>7.98</td>
<td>11</td>
<td>7.63</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>9</td>
<td>7.93</td>
<td>9</td>
<td>7.76</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>10</td>
<td>7.92</td>
<td>10</td>
<td>7.66</td>
</tr>
<tr>
<td>* United States</td>
<td>17</td>
<td>7.53</td>
<td>16</td>
<td>7.35</td>
</tr>
<tr>
<td>* Germany</td>
<td>19</td>
<td>7.46</td>
<td>17</td>
<td>7.33</td>
</tr>
<tr>
<td>* Ireland</td>
<td>23</td>
<td>7.25</td>
<td>22</td>
<td>7.10</td>
</tr>
<tr>
<td>* China</td>
<td>78</td>
<td>4.18</td>
<td>79</td>
<td>3.86</td>
</tr>
</tbody>
</table>

* = selected reference countries

Table 4.3 2012 ICT Development Index (Source: ITU, 2013)

The fact that Korea appeared in first place in both the 2012 and 2011 analysis, while also managing to improve its overall score shows that the country has sustained a pivotal position of importance in the overall global ICT scheme. It is also worth noting that Korea has over three times the population of any other country in the top seven, only serving to add further weight to its significance on the list. However, in order to understand the rankings, it is essential to drill down into the three basic sub-indices; Access, Use and Skills.
4.3.4 Internet Access and Infrastructure

In the ITU study, the Access Category measured the scale of each country’s ICT infrastructure in parallel with the level of penetration of their Internet services. Their measurement system revolved around considering the number of people that have opted to use the available Internet services in each country.

The Access category measured five criteria:
- Fixed telephone subscriptions per 100 inhabitants
- Mobile-cellular subscriptions per 100 inhabitants
- International Internet bandwidth per Internet User
- Proportion of households with a computer
- Proportion of households with Internet Access at home

A summary of the results can be seen in Table 4.4 below:
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td>1</td>
<td>9.18</td>
<td>1</td>
<td>9.13</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>2</td>
<td>8.93</td>
<td>2</td>
<td>8.72</td>
</tr>
<tr>
<td>Iceland</td>
<td>3</td>
<td>8.77</td>
<td>3</td>
<td>8.71</td>
</tr>
<tr>
<td>Switzerland</td>
<td>4</td>
<td>8.73</td>
<td>4</td>
<td>8.61</td>
</tr>
<tr>
<td>Germany</td>
<td>5</td>
<td>8.51</td>
<td>5</td>
<td>8.48</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6</td>
<td>8.46</td>
<td>7</td>
<td>8.30</td>
</tr>
<tr>
<td>Sweden</td>
<td>7</td>
<td>8.37</td>
<td>6</td>
<td>8.36</td>
</tr>
<tr>
<td>Singapore</td>
<td>8</td>
<td>8.31</td>
<td>9</td>
<td>8.21</td>
</tr>
<tr>
<td>Netherlands</td>
<td>9</td>
<td>8.28</td>
<td>8</td>
<td>8.23</td>
</tr>
<tr>
<td>Malta</td>
<td>10</td>
<td>8.28</td>
<td>11</td>
<td>8.16</td>
</tr>
<tr>
<td>* Korea (Rep.)</td>
<td>11</td>
<td>8.28</td>
<td>10</td>
<td>8.19</td>
</tr>
<tr>
<td>* United States</td>
<td>29</td>
<td>7.24</td>
<td>26</td>
<td>7.12</td>
</tr>
<tr>
<td>* Ireland</td>
<td>23</td>
<td>7.59</td>
<td>23</td>
<td>7.49</td>
</tr>
<tr>
<td>* China</td>
<td>80</td>
<td>4.36</td>
<td>82</td>
<td>4.04</td>
</tr>
</tbody>
</table>

* = selected reference countries

Table 4.4. 2012 ICT Access Index (Source: ITU, 2013)

As can be seen in the Table 4.4 above, South Korea is listed in eleventh place. While still receiving a high score, this is Korea’s lowest ranking out of the three ITU sub-indices. In order to fully understand these figures, it is useful to have a closer look at some ICT infrastructure information to place this score into context.

As of 2013, Korea had the highest number of mobile-broadband subscriptions worldwide at 107% (ITSTAT, 2013). It may be significant that the level of subscriptions to high-speed mobile broadband services may reduce the need for other types of Internet connections. For example tablet and phablet devices in Korea are mostly sold with monthly plans for Mobile Internet use. Many of these monthly plans are now based on unlimited data use. Therefore, if people choose a mobile device as their primary computing interface, they may no longer need a fixed line subscription.
or even a computer in their homes. It could be argued that Korea’s slightly lower placing on this list could be down to the fact that Korea has already outgrown the measurement system for this section. This may become more apparent when the next set of figures become available in 2014.

It is certain that availability is not a limiting factor for broadband connections in Korea, as almost 97% of all households in Korea have fixed line Internet services available (ITU, 2013). However, the number of fixed-broadband subscriptions stands at 36.6% (4th in the world behind the Netherlands, Switzerland and Denmark). It is likely that this percentage will stagnate or even drop as Mobile Internet Devices continue to capture increased market shares. Smartphones have completely changed the landscape of Korea’s Internet usage patterns. This provides another example of how Korean consumers can be considered early Internet adopters. In 2008, a relatively low figure of 7.5 million smartphones were sold in South Korea but when competition began between Apple’s iPhone and Samsung, it led to a 220% increase in smartphone sales in just over a year. As of 2012, almost half (20 million) of the entire population of South Korea owned a smartphone (Hanguk Research, 2012).

One area where fixed-line broadband connections continue to outperform mobile connections is on speed. This is another area where South Korea appears close to the top of the list. In a 2012 study by Akamai, they sampled 35 petabytes of data from 27 million downloads and 224 countries. The result was that South Korea had an average fixed-line peak Internet Connection speed of 48.8 MBps (Megabytes per second). To put that into perspective, this was almost four times the world’s average and was faster than the speeds in the UK, Turkey, Spain and Australia combined (Streams, 2013).

Again, Korea leads the way on the fastest Internet cities on the world list. Seocho (which is actually a large suburb of Seoul) weighed in at 33.5 Mbps in 2012. This was well ahead of Andover in the USA (also more like a suburb of Boston), which rated as North America’s fastest city with a speed of 22 Mbps. The speeds level available to South Korean consumers can mostly be attributed to strong infrastructural support from the Government. For example, the Korean government is currently working on a project that promises to provide a speed of 1 GBps to every household in the country.
(KISA, 2012). This makes South Korea’s Internet speed 65% faster on average than speeds in the U.S.

4.3.5 Internet Use

The second sub-index that the ITU used to paint a picture of Internet levels was Internet Use. These indicators attempted to measure ICT uptake along with the duration of people’s Internet usage. The three sub-indicators included in the use sub-index were:

- Internet users per 100 inhabitants
- Fixed broadband Internet subscriptions per 100 inhabitants
- Active mobile-broadband subscriptions per 100 inhabitants.

A summary of the results in this area can be seen in Table 4.5 below:
<table>
<thead>
<tr>
<th>Economy</th>
<th>2012 Rank</th>
<th>2012 Use Score</th>
<th>2011 Rank</th>
<th>2011 Use Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>1</td>
<td>8.25</td>
<td>2</td>
<td>8.16</td>
</tr>
<tr>
<td>Korea (Rep)</td>
<td>2</td>
<td>8.22</td>
<td>1</td>
<td>8.17</td>
</tr>
<tr>
<td>Denmark</td>
<td>3</td>
<td>8.15</td>
<td>3</td>
<td>7.78</td>
</tr>
<tr>
<td>Norway</td>
<td>4</td>
<td>8.05</td>
<td>4</td>
<td>7.67</td>
</tr>
<tr>
<td>Finland</td>
<td>5</td>
<td>8.05</td>
<td>5</td>
<td>7.51</td>
</tr>
<tr>
<td>Japan</td>
<td>6</td>
<td>7.51</td>
<td>6</td>
<td>7.49</td>
</tr>
<tr>
<td>Iceland</td>
<td>7</td>
<td>7.50</td>
<td>10</td>
<td>6.96</td>
</tr>
<tr>
<td>Australia</td>
<td>8</td>
<td>7.46</td>
<td>12</td>
<td>6.66</td>
</tr>
<tr>
<td>Netherlands</td>
<td>9</td>
<td>7.32</td>
<td>9</td>
<td>6.99</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>10</td>
<td>7.29</td>
<td>8</td>
<td>7.07</td>
</tr>
<tr>
<td>* United States</td>
<td>14</td>
<td>6.76</td>
<td>14</td>
<td>6.43</td>
</tr>
<tr>
<td>* Ireland</td>
<td>21</td>
<td>6.08</td>
<td>20</td>
<td>5.81</td>
</tr>
<tr>
<td>* China</td>
<td>66</td>
<td>2.70</td>
<td>69</td>
<td>2.24</td>
</tr>
</tbody>
</table>

* = selected reference countries

Table 4.5. 2012 ICT Use Index (Source: ITU, 2013)

On this list, Korea sits in second place. This supports the data shown in the *Network Readiness* study earlier where Korea ranked very highly in the ICT use metrics. One of the indicators shown in this table may be already outdated however. The number of fixed broadband Internet subscriptions per 100 inhabitants indicator may be measuring something that is no longer needed in many Korean homes due to the strength and speed of mobile Internet connections.
4.3.6 Internet Skills

The third criterion that the ITU used to measure Internet use globally was Skills. This was judged in an indirect way in their study by assessing the following three sub-indicators:

- Adult literacy rate
- Gross secondary school enrolment
- Gross tertiary school enrolment

The results of the rankings in this section are shown in Table 4.6 below.

<table>
<thead>
<tr>
<th>Economy</th>
<th>2012 Rank</th>
<th>2012 Skills Score</th>
<th>2011 Rank</th>
<th>2011 Skills Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea (Rep.)</td>
<td>1</td>
<td>9.86</td>
<td>1</td>
<td>9.86</td>
</tr>
<tr>
<td>Finland</td>
<td>2</td>
<td>9.80</td>
<td>2</td>
<td>9.80</td>
</tr>
<tr>
<td>United States</td>
<td>3</td>
<td>9.65</td>
<td>3</td>
<td>9.65</td>
</tr>
<tr>
<td>Greece</td>
<td>4</td>
<td>9.55</td>
<td>4</td>
<td>9.55</td>
</tr>
<tr>
<td>Belarus</td>
<td>5</td>
<td>9.48</td>
<td>5</td>
<td>9.48</td>
</tr>
<tr>
<td>Slovenia</td>
<td>6</td>
<td>9.44</td>
<td>6</td>
<td>9.44</td>
</tr>
<tr>
<td>New Zealand</td>
<td>7</td>
<td>9.38</td>
<td>7</td>
<td>9.38</td>
</tr>
<tr>
<td>Spain</td>
<td>8</td>
<td>9.34</td>
<td>8</td>
<td>9.34</td>
</tr>
<tr>
<td>Australia</td>
<td>9</td>
<td>9.29</td>
<td>9</td>
<td>9.29</td>
</tr>
<tr>
<td>Iceland</td>
<td>10</td>
<td>9.24</td>
<td>10</td>
<td>9.24</td>
</tr>
<tr>
<td>* Japan</td>
<td>34</td>
<td>8.62</td>
<td>34</td>
<td>8.62</td>
</tr>
<tr>
<td>* Germany</td>
<td>45</td>
<td>8.17</td>
<td>45</td>
<td>8.17</td>
</tr>
<tr>
<td>* Ireland</td>
<td>20</td>
<td>8.89</td>
<td>20</td>
<td>8.89</td>
</tr>
<tr>
<td>* China</td>
<td>93</td>
<td>6.77</td>
<td>93</td>
<td>6.77</td>
</tr>
</tbody>
</table>

* selected reference countries

Table 4.6. 2012 ICT Skills Index (Source: ITU, 2013)

As we can see in the above list, South Korea ranks in first place on the scale that the ITU used for this area. The fact that this criterion was measured in an indirect way led
to some countries appearing in much different positions on the list than they did in the
directly measured criteria. Some examples of this are the inclusion of Greece, Belarus
and Slovenia in the top ten. Obviously these countries have highly inclusive education
systems but do not have the Internet infrastructure and usage characteristics
highlighted in earlier sections.

By analysing the ITU study results and the supporting information behind the data,
South Korea’s importance in the world of ICT immediately becomes apparent.
Korea’s position among the countries at the forefront of ICT early adoption and use is
unlikely to be usurped any time in the near future. This makes South Korea the ideal
subject for study in this area.

4.4 Research Methodology

4.4.1 Introduction

In any cross-disciplinary study, the research methodology needs to be carefully
considered and the decision to move outside of a discipline needs to be justified to
establish why it is beneficial in the context of the study. In this thesis, a number of
disciplines are straddled and the reasoning behind the diverse use of sources of
evidence will be explained in the next section. Also, the use of a historical overview
will be discussed in Section 4.4.3. The ICT area is considered to be a new and
dynamic area and its links to the past are not always apparent. In Section 4.4.3, the
reasoning behind using a historical approach will be introduced by explaining how
Korea’s rapid development trajectory is strongly influenced by path dependencies
from historical events. Finally, the use and choice of case studies will be analysed in
Section 4.4.4. In research work, case studies are a somewhat controversial area as
they are not always contusive to answering research questions. Section 4.4.4 will
show why case studies have value in this research area and why certain case study
areas were selected.
4.4.2 Multi-disciplinary, Cross-disciplinary or Interdisciplinary Studies

Academic disciplines have been traditionally seen as distinct areas of study with their own theories, methods and content. This has been reflected in institutions by separating activities into departments, chairs, courses, research groups and other similar designations (Squires, 1992, p202). Disciplines train members of their departments by providing tailored scientific processes and standard acceptable approaches for solving problems that can be peer reviewed by others who are also familiar with these structures (Beyer & Lodahl, 1976; Reich & Reich, 2006).

However, when following the thread of evidence needed to solve a research question, researchers sometimes find themselves at the boundary of their discipline. This can leave them with a dilemma. Will they move out of their comfort zone and try to seek the answers in the unfamiliar territory of another discipline or move back inside their own area and reappraise the direction of their investigation? The second choice is sometimes the path of least resistance because it does not challenge existing academic structures and does not challenge the assessment framework of their institution. Unfortunately, it can also result in promising paths of inquiry being discarded or ruled out because of where they are taking the researcher.

If a researcher decides to take the path of moving outside their discipline into a cross-discipline study, then another question must be answered. Which is the correct type of cross-disciplinary approach for their research question; Multidisciplinary, Transdisciplinary or Interdisciplinary?

A multidisciplinary approach is based on drawing from various disciplines to re-evaluate problems from perspectives that lie outside of normal boundaries in order to reach solutions to complex problems. It is based on the concept of the co-existence of multiple discrete and autonomous disciplines. Multidisciplinarity can be described simply as an approach in which: ‘everyone [does] his or her thing with little or no necessity for any one participant to be aware of any other participant’s work’ (Petrie, 1976, p9). In many ways multidisciplinary approaches lend themselves to the use of teams where each member has their own distinct expertise. The advantage of multidisciplinary teamwork is that there is in-depth knowledge of each facet of the
study when a deeper analysis is needed. The disadvantage is that lines of inquiry can be lost when crossing over from one discipline to another due to variances in perspective, analytical methods and standards. Important research threads can fall between the cracks of disciplines because the line joining the dots cannot bridge the divide.

One of the first scientific references to the idea of Transdisciplinarity as it is used today was presented by Erich Jantsch (1972: p28) to the OECD in 1970. He explained it as ‘the targeted coordination of a group of disciplines and inter-disciplines, which together are involved in a complex scientific system, and which have a common purpose, with this coordination based on a general system of axioms that are considered binding on all concerned’. Despite the complexity of the definition, the idea caught on and evolved. The broadest concept of Transdisciplinarity is that it involves moving across disciplines with a set of research tools and approaches in order to investigate a research question (Miller & Boix, 2004). It lends itself to research projects where an individual researcher is willing to cross boundaries in order to try and conduct research using their current skillset and practices. This can eventually result in the branching off of study into a new discipline (Dunning, 1989).

The idea of Interdisciplinarity is quite close to Transdisciplinarity. This involves the combining of two of more academic disciplines into a single research activity. Its aim is to solve a problem or provide a bigger picture explanation of a topic in ways that would have been impossible when confined to a single discipline (Creamer & Lattuca, 2005). This form of research also lends itself to a single researcher working on a topic or question but it can involve collaboration by integrating knowledge from various disciplines into the project. Petrie (1976) suggested that Interdisciplinary relationships should be sought when the demands of the subject warrant it, and not before. Certain questions require the use of alternative perspectives in order to be solved.

In the context of this study, the aim is to study the rise of Korea’s ICT industry and explain why it was centrally planned with heavy Government involvement. As seen in Section 1.1, while looking at the rapid development of Korea’s economy, researchers often stopped at the post-war period and pinpointed President Park Chung-Hee’s
leadership as the only significant factor that allowed for economic growth. However, this leaves some questions unanswered. Why did President Park’s regime take a very different economic approach than the one favoured by the U.S.A at the time even though South Korea was still very much under their sphere of influence? What are the social / historical factors that were behind this approach? How are these approaches evolving in the era of free trade agreements?

These questions involve stepping outside of the boundaries of a single discipline and looking at history, culture, technology and economics. The historical aspect involves looking at the path-dependency stemming from historical events and tracing how they entered the decision-making processes in recent times. Culture is important because Neo-Confucianism is a part of all relationships in Korea and these relationships strongly influence the country’s business environment. It also provided the emphasis on education and exam culture that partially lies behind the early adoption and use of ICT devices. The economic viewpoint is needed to show what economic development path Korea took. Knowledge of technology is essential as the topic is the how these factors shape the ICT area.

As this research project did not involve a team or an expert in various disciplines, the multi-disciplinary approach was not really an option. Transdisplinarity was also unsuitable as this research project was more about following the trail of breadcrumbs to see where it leads as opposed to applying consistent approaches across a set of disciplines. Therefore an Interdisciplinary method was the appropriate choice for this research area. It allows the crossing of boundaries without requiring in-depth knowledge of each area in order to provide an integrated bigger-picture view that includes the constituent factors.
4.4.3 **Historical approach and Path Dependency**

The idea of looking back into history to find the roots of Korea’s economic development lies in the idea of path dependency. Path dependency means that decisions and actions can be attributed to the experiences and strategies taken in the past even if past circumstances may no longer be relevant. In economics, path dependency has been used extensively to explain technology adoption processes and industrial evolution in developing countries (Nelson and Winter, 1982; Thorbecke, 2006; Douma and Schreuder, 2013). It is closely connected to evolutionary economics. This area looks at the external processes that affect and transform economies and has parallels with evolutionary biology and Darwinian theories.

Specifically, the economic transition and innovation path that took place in certain East Asian countries after the Second World War was analysed in depth by John Cantwell (1999, 2000, 2003). In his research, Cantwell concluded that the progress made by this group of countries, one of which was Korea, needs to be studied using a techno-socio-economic paradigm in order to be understood. He also pinpointed the role of Government and the management of trade barriers in both Korea and Japan as key factors in their growth cycles. Furthermore, in a study on path dependency in international networks of technological innovation (2009), Cantwell outlined the need to trace the roots of development to historical events to pinpoint the factors that create an environment in which certain industries can thrive even in countries that were catching up economically.

There are two types of path dependency study paradigms that are used in the comparative-historical analysis of the development of businesses and organisations. The first type is the critical juncture framework where sequences of the past establish specific development habits and approaches that are difficult to break away from. If these habits are successful they become self-reinforcing sequences of increasing returns, where the adopted pattern delivers ever-increasing benefits with its continuous use (Arthur, 1994). The second type of path dependent analysis is the study of reactive sequences. These are connected sequences of ordered, causally-connected events. Therefore, each event is part of a chain that builds on the previous
event. This type of analysis is generally seen as a path towards a single outcome (David, 1985).

The basis for the use of path dependency in this thesis is that there appears to be a reactive sequence of events beginning in Korean history that has exhibited itself within the characteristics of Korea’s post-war economic development period. This is a critical constituent part of the mix of elements that have come together in order to drive Korea’s growth in ICT to become a world leader. In this thesis, the notion is put forward that Korea has exhibited both types of path dependency in its history.

The type of path dependency that is more suited to the analysis of Korea’s rapid development is the reactive sequence approach. As introduced in Section 2.3.4, there is a strong idea that Korea’s mistakes of the past led to a situation where the country was too weak to defend itself against the influence of larger countries who did not have their best interests at heart. This manifests itself as a desire to change their path to ensure these mistakes are not repeated. However, Korea’s rapid development was based on a definite strategic approach as seen in Section 2.6.4. When a strategy is successful, it can set the country on path towards having a critical juncture framework where the development habits that worked well in the past become engrained as a part of the decision-making process especially if the country continues to reap dividends from its use. Therefore, there is a basis for saying that Korea exhibited a reactive sequence to certain historical events that took place pre-industrialisation, but is now exhibiting characteristics of critical juncture path dependency by repeating the techniques used during the country’s era of rapid economic growth in adapted forms to suit the changing international environment.

Two study areas were removed from the path dependent historical overview in this thesis and analysed in separate chapters. These were Neo-Confucianism and Korean Netizens. Both these areas were pinpointed as areas that required a different level of examination than the other historical events from Chapter 2. Neo-Confucianism is a philosophical subject, but it is enshrined in history so it does have path dependent characteristics. However, the focus on Neo-Confucianism in this thesis is on how it strongly influences contemporary communication, organisational culture and education in Korea. This aim of the Chapter is to show how Neo-Confucianism and
the education meritocracy it has created in Korea has no role for foreigners or foreign companies so it can lead to the erection of barriers as a byproduct, rather than by design.

Netizens as a study subject was also taken separately from Chapter 2 because it required a greater level of detail than anything covered earlier. Korean Netizens are fluid social groups that have been spawned by reactive sequences based on Korean historical events. They are significant because they show how certain mixes of combustible elements can trigger strong reactions and Internet social movements in Korea. This can be tied back to historical events and formative international experiences.

4.4.4 Use of Case studies

A case study can be simply defined as ‘the intensive study of a single subject with the aim of generalising across a larger set of subjects’ (Dul & Hak, 2008 p40). In this thesis, the role of the case studies is to see if research evidence can be found of a causal relationship between the topics and the historical path dependencies discussed earlier in the research. This provides a micro / meso level view to complement the macro view of the ICT business of Korea shown earlier in the thesis. This research strategy aims to provide an empirical inquiry that investigates the proposed phenomenon within its real-life context.

One premise of this thesis is that trade-protectionism and centralised decision making processes in Korea when it comes to international business, is a natural phenomenon considering that the history of the country is littered with examples of foreign powers removing Korea’s leaders along with controlling and sometimes exploiting the country. Therefore, the aim of the case studies here is to illustrate how protectionism manifests itself, using a small number of specific examples. These case studies can also be considered to be part of the broader methodology used in this research. The case studies needed to be drawn directly from business in order to provide concrete practical scenarios.
4.4.5 Choice of case studies

When tracing paths from history and causation, it is often helpful to choose subjects that provide an interesting, unusual or particularly revealing set of circumstances. The case studies chosen can be outlier cases (where the subject is extreme, deviant or atypical), key cases that provide representative case examples or local knowledge cases. Outlier cases often provide more useful insights but local knowledge cases can be powerful when the researcher has specialist knowledge of the area from being immersed within the environment (Hamel, 1993).

When choosing case study examples, it is common to provide a mix of secondary data along with in-depth interviews. However, in this thesis, the decision was made to rely entirely on carefully selected secondary data. In certain case studies, analysis of the information may point in a direction that is not in line with the image that parties with vested interests may want to portray. With that in mind, the case studies presented here did not involve direct interviews with Korean Government officials or representatives from the ICT industry in Korea, as any information gathered in that way was unlikely to be of benefit to the study.

In this thesis, the theoretical focus is the rapid development of Korea’s economy and more specifically the ICT business area. So, the case studies were chosen as a means by which the object of the theoretical focus can be viewed and illustrated. As the ICT area is rapidly evolving, the case studies chosen needed to be contemporary and relevant to current technology trends. In this thesis three case studies were selected, namely the battle for Office Suite Dominance, Active-X and the SEED Security Standard and Korea’s telecommunication industry.

The case study examples used in this thesis were selected based on business anthropology approaches. It is possible to identify good opportunities for research by becoming immersed in an environment and identifying topics suitable for further study based on observation from within, while asking why each individual characteristic of an industry exists. In order to replicate the approach taken in this study, a researcher would need to gain practical work experience in a region and then search for the key business scenarios that influence the companies working in the
area. With that in mind, the rationale for these three case studies used in this study are given below.

The battle for Office Suite Dominance: This case study is a local knowledge example that uses a combination of the experiences and observations of the research along with academic and media articles. It is a narrative that has not yet reached a conclusion but it has a number of critical events that make it a good study topic. The first key point is that the case study contains direct competition between Hancom, a domestic small-medium enterprise (SME), and Microsoft, a large Multinational Corporation (MNC). The second important detail is that the MNC is American and of course the USA is often perceived to be one of the countries that has threatened Korea’s sovereignty in the recent past. The third important detail is that Hancom has a connection to Korea’s history because their flagship product uses and associates itself with the Hangul Writing System, which is of huge cultural significance to Korean people, and is itself a symbol of independence. Therefore, it ticks all the boxes as a practical local-knowledge case study that serves as a contemporary illustration of what can happen when a MNC threatens the business of a home-grown company where protectionism is part of the social fabric. It links back to the research question because it shows how trade can be affected by social and historical factors in the ICT area.

Active-X and the Seed Security Standard: This case study is another local knowledge example that comes directly from practical business experience. In this example, the Korean Government features heavily, as it was a chain of decisions made by Government bodies that resulted in a unique I.T security ecosystem in Korea that diverged from the rest of the world. It was selected because of the pivotal role of the Government in the development and evolution of this ICT area. This case study links directly back to the research question as the security standard was challenged legally as an example of a technical trade barrier.

Korea’s Telecommunication Industry: This case study contains a much wider scope than any of the preceding examples. It was selected because this is an area of ICT where Korea has a world leading company. Therefore, it can be use to track the development path that the company and the industry took in order to produce a set of products that managed to be hugely successful internationally. This case study
involves both Government and Private Sector organisations working together. It is connected to the research question because it again involves domestic Korean companies competing directly with large international corporations for business dominance both inside and outside the country.

4.4.6 Expectations from each Case Study

The battle for Office Suite Dominance:

In this case study, the expectation is that evidence will show how the Korean public, business and Government reacted to a large international company that directly threatened the continued existence of a homegrown company. The most likely conclusion based on experience from Korean history is that it would trigger a strong social movement against the international company that would then in turn set in motion a chain of events resulting in the Government erecting trade barriers or other measures to protect the domestic company. Depending on the domestic company’s ability to take advantage of their protected status, the expectation is this would either provide them with a platform to expand their business outside Korea or else consolidate their domestic user base. In section 6.9, the evidence presented by this case study is discussed to establish if the Hancom business trajectory can be explained by the role of the Korean Government and the company’s connection to Korean heritage through their product’s name.

Active-X and the Seed Security Standard:

In the second case study, the expectation is that a linkage to history will be shown by Korea’s willingness to go it alone and create their own standards and approach to solving problems. The research will most likely show that this approach created a walled garden and a trade barrier that no international company could get past in the online transaction security area. The expectation is that it will also show how the standard became a trade issue when it was legally challenged by a group of Korean academics claiming it stifled competition and protected certain businesses. At a first glance, it may seem that the protected company is actually a large MNC but with a deeper investigation, it is likely that they will not be the only protected organisation.
This study will aim to show the intertwined relationship between business and Government in Korea and how that can create certain business conditions that in turn affect trade. Section 7.6 provides a summary of the findings of this case study, which shows how certain antivirus companies used the barrier created by the use of Active-X to establish a niche business area that could not be threatened by non-Korean companies.

Korea’s telecommunication industry:

The expectation in the third case study is that it will show how a set of decisions by the Korean Government created a telecommunications environment that allowed Samsung and LG to rise first to the top of their domestic market and then gave them a platform to become a global success in their industry. This appears to be the equivalent of a key case study because it follows the development path of domestic Korean companies that were nurtured and protected by the Government. In this case, the expectation is that the study will show that the actions of the Government provided a platform for the Korean companies that allowed them to compete effectively internationally. This will link directly back to the research questions from Chapter 1. This connection is summarised in section 8.9, showing how Samsung used their protected domestic base to expand internationally in the consumer electronics area to become a market leader for certain products.
Chapter 5

The Growing Influence of Korea’s Netizens
Chapter 5: The Growing Influence of Korea’s Netizens

5.1 Introduction

This Chapter will analyse the role and importance of South Korea’s Netizen groups in the context of understanding the characteristics of the country’s ICT business area. Korea’s Netizens are the millions of people who use and contribute digital content on the Internet in various ways. Opinions are mixed about whether they are a negative or positive influence on society. Depending on who is asked, they may be described as useful sources of information or any angry mob of vicious cyber bullies. Netizen Groups are in many ways a window into the attitudes and interests of younger Korean people. Young males are often over represented proportionally in Netizen activities but as seen in Section 3.4.6, South Korea is still a very male dominated society so that may explain the gender disparity.

This study begins with a definition of the word Netizen in order to provide a context for the research that follows. This logically leads to an investigation into the origins of the Netizens and how they evolved from their early beginnings. The roots of Netizens lie in the bulletin board communication systems pioneered first within the U.S Department of Defense, and later within North American Universities in a more open community-based form. As Internet use became more widespread, the idea of a Netizen declined in most of the English Speaking world seeing as the majority of people were online regularly and they could all be considered Netizens.

The term Netizens re-appeared in South Korea at the turn of the century with a different interpretation. The groups referred to as Netizens in Korea came from activist and sports support groups, as opposed to the bulletin board communities of the past in North American Universities. One of the main reasons activist groups took to the Internet in this fashion is because the mainstream South Korean media is perceived to be controlled by the Government. A short summary of this connection is included to understand where the calls for a platform for dissent came from. As will be seen later in Section 5.6.1, when the Korean Netizens finally started to form groups and become active, they quickly became a very powerful group in Korea. The
research follows the rise of the Netizens, beginning with small political support
groups, and eventually growing through sports and protest campaigns to become a
key part of Presidential Elections and national policy-making.

One highly important communication channel for the Korean Netizens was the
Citizen Journalist website Ohmynews. It gave a voice to those who wanted to provide
an alternative to the traditional media so this will also be included and analysed in
Section 5.4. The relationship between the huge candlelight protests in Seoul and the
Netizens activists will be explored, showing how the online communities fuelled the
campaigns. When a key number of ingredients are present at the same time in Korea,
it creates a perfect storm effect among these online groups. The ingredients will be
identified in this study. This Chapter also includes a look at how the Korean
Government has tried to control and restrict Netizens. Some of these initiatives caused
a lot of resentment and anger and illustrate how the Government sees the Netizens as
a threat.

In the context of this research thesis, the Netizens can be seen as a litmus test for how
Korean attitudes are evolving. The aim of this Chapter is to display how central
Netizens have become in Korea and show how the Government intervened when they
became very powerful. It is another example of how proactive the Korean
Government is in trying to control the ICT industry and the Internet. This could be
seen as either a positive and negative characteristic depending on the perspective
used.

5.2 What is a Netizen?

The term Netizen comes from a combination of the English words Network and
Citizen. It can be defined as a person who actively contributes content or comments to
Internet Networks. The terms Netizens and Cybercitizens are often considered to
have the same meaning. Netizens are the creators of Cyberculture. This is a
collection of cultures and cultural content that appears on and is enabled by the
Internet, in tandem with the feedback given about these items. Cyberculture was
spawned when computer networks started to be used for communication,
entertainment and business (Bell et al., 2004). It sits within the cognitive space shared between people and computing devices.

Netizens use of the Internet is characterised by the convergence and overlap of the following areas (Hauben et al., 1997):

- Email / Instant Messaging / Online chats: Direct communication by means of the Internet.
- Internet forums: Websites that hold discussions of topics.
- Online games: Multiplayer games played using the Internet.
- Blogs / Social Media: Communities of networked users, where each individual can share thoughts / media / creations with others.
- Feedback & comments systems: A mechanism used to collected and display responses to media from Internet users.
- User Generated Content: A process whereby Internet users create, modify information / media on the Internet alone or with collaborators.
- File sharing: A technology that makes it possible for Internet users to share files from their computers with other Internet users. This enables the fast distribution of digital media.

5.3 Origins of the Netizens

5.3.1 ARPA

The roots that led to the emergence of Netizens as we know them today were established at the U.S Government’s Advanced Research Projects Agency (ARPA) in the 1960s. Under the umbrella of the U.S Department of Defense, ARPA began work on the development and testing of computer communications networks (Salus, 1995). In 1969, they launched an experimental connection of computers known as the ARPA Computer Network (Arpanet) (Abbate, 2000). The first host connected to the Arpanet was a terminal at the University of California in Los Angeles (UCLA) on Sept 2nd, 1969. Arpanet quickly became a success and it paved the way for many advances in
communications research. Electronic mail (e-mail) became the main channel for communication early on and this resulted in major productivity increases. By 1977, Arpanet had expanded to over 50 sites in North American and Europe. Most of the original users of this network were technical and scientific specialists, but some of the group began to use the Net for more than just technical discussions (Gillies and Cailliau, 2000).

Arpanet lasted until the mid-1980s before being superseded by various internal networks. For example, university communities started to use NSFnet, which started out as a communication medium for university researchers and the five U.S National Supercomputer Centres. NSFnet built upon research done on Arpanet and it went on to become the U.S. backbone for the larger global network now known as the Internet. The Arpanet managed to successfully connect various spatially remote computers, and created a new communication channel for the people who used those computers (NSF, 2007). However, it was also an exclusive club limited to professors at universities and employees of a small group of Defense Industry organisations.

5.3.2 Usenet

As explained above, there were many individuals who could not get access to the Arpanet but sought similar ways to communicate. These groups felt they needed to design equivalent networking systems using operating systems that allowed open collaboration and communication to maximize their user base. Usenet was born in 1979 when two graduate students from Duke University collaborated to create a computer network (Lueg and Fisher, 2003). Soon, three computer locations, ‘Duke’ at Duke University, ‘UNC’ at the University of North Carolina at Chapel Hill and ‘Phs’ at the Physiology Department of Duke Medical School, linked up and a basic system was put in place to connect them (Lehnert and Kopec, 2007).

Usenet was developed in order to create a Unix user network. The development team expected that Usenet would help people to share experiences and solve problems with Unix. They made various newsgroups organized by topic areas on many different subjects. Users could post content on any of the newsgroup pages, reply to another user’s posting or email messages to respond to the writer of a piece (Rittner, 1997).
Usenet sites expanded slowly at first. This changed early in 1981, when Arpanet and Usenet were connected. The University of California at Berkeley had access to both Arpanet and Usenet and Usenet pioneer, Mark Horton, decided to begin importing mailing list discussions from Arpanet and posting them on Usenet newsgroups (LaQuey, 1990).

### 5.3.3 The Convergence of Arpanet and Usenet

The incorporation of Arpanet mailing lists onto Usenet brought a lot of new users on board. Gradually, Arpanet became interconnected with other networks and began to function like a backbone to other networks instead of as a self-contained network (Horton, 1990). By 1982, Usenet had stretched all over North America. A system of community networks began to develop, where organisations used Netnews software to make Usenet available to communities for free or for a nominal charge (Flickenger, 2003). This new form of media posed a challenge to conventional mass media. Usenet was controlled by its audience, so the majority of the content posted on it was created by users who also actively read Usenet. This gave its users a sense of participation and provided motivation for them to contribute. Usenet exploded from two articles per day posted on three sites in 1979 to 1800 articles per day on 11,000 sites in 1988 (DeJean, 2008).

Usenet provided the Internet platform needed for digital citizens to emerge. It created a real networked community that users felt a part of. These users also created and popularised a lot of terminology and ideas that are now taken for granted on the modern Internet. For example, the system administrators of Usenet coined the term Netiquette to encourage good behavior during networked discussions (Pregowsk, 2000). They also spread the notions of FAQs (Frequently Asked Questions) and Spam. To pay homage and illustrate its importance, Tim Berners-Lee launched the World Wide Web and Linus Torvalds announced the Linux project as posts on Usenet (Torvalds and Diamond, 2001).
5.4 Birth of the Netizens Concept

By the early 1990s, networked computers had become a widespread tool for discussion and information exchange. The most common tools used at the time were Usenet, mailing lists and free-nets. Usenet featured a number of network-wide newsgroups with a ‘Net.’ naming convention, including ‘Net.General’ for general discussion, ‘Net.Auto’ for postings about cars and ‘Net.Bugs’ to share and solve Unix technical problems. Individuals that provided content to Usenet started to prefix terms relating to online terms by adding the word NET. For example, users would mention ‘Net.Gods’, ‘Net.Cops’ or ‘Net.Citizens’ (Turkle, 1997). When analyzing the impact of Usenet and how it had created a community in 1995, Michael Hauben used the word Netizen as a shortened version of Net.Citizen to describe Usenet contributors (Orlowski, 2001). When his paper became widely circulated, the concept began to spread and the terminology became increasingly common.

5.5 Netizens in Korea

5.5.1 Civic activism and student protests

Citizens of South Korea have a long history of civil disobedience and protest gatherings to rally for political and social issues. The epicenter for these protests has traditionally been City Hall in Seoul (Chandra, 1988). Examples of large protests held there include the Independence Club campaigns from the late 1890s, the 1919 Samil movement, the 1960 Student Uprising and rallies demanding democracy in 1980 and 1987. The Internet then evolved to become the most common way to organize large civil movements globally nowadays and this evolution took place in Korea too. An important point is that Neo-Confucianism stresses the need to carry out tasks in a correct and just manner. This means that a sense of unjust or unfair treatment can trigger very strong reactions from Korean people. When these feelings and the ability to organize large groups via the Internet converge with Korea’s suspicion of external influences, desire for conformity, strong ethnic identity and nationalism, it can become an extremely powerful force (Hart, 2001). The organisers and participants of these large online movements, which sometimes also become
street protests, have now become known as Korean Netizens. The term Netizen has become a byword for online activism in Korea, so it taken on a slightly different meaning that it has in most other places where it is more associated with bulletin board contributions and online collaborative content creation (Cho and Ahn, 2011).

5.5.2 Government involvement in the media

Traditionally, conservative political groups have controlled the media in South Korea either directly or indirectly. For example, President’s Park and Chun directly controlled the media through censorship and manipulation, and then indirectly by other means. Publications, including highly acclaimed opinion journals, were banned or merged in 1961, 1972 and 1980 (Ko, 2006). About seven hundred journalists were dismissed and one hundred seventy two publications were banned by Chun’s press purification campaign in 1980 (Kim, 2004). A total of nine hundred thirty three journalists were forced to quit by 1980 (Park, 2004). After the democratic elections in 1988, the level of control was reduced. Under the Young-Sam Kim Government (1993-1997), the media were nominally free (Lee, 2003). However, the regime still indirectly controlled the media by using tax investigations (Woo & Joo, 2002).

5.5.3 Ohmynews and the Nosama Group

Because of their long-standing association with the Conservative Elements of the Korean political sphere, most of the main Korean newspapers and TV news shows consistently supported them (Youm, 1996). Conversely, during periods in which Korean Presidents came from more liberal parties, they strongly criticised their policies. It was from this environment that a new form of media appeared in South Korea (Kim, 2004). On the 22nd February 2000, former investigative reporter Oh Yeon-ho launched a news website called Ohmynews. The stated aim of this new site was to encourage citizen and Netizen journalism (Cho, 2003). Anyone was allowed register and contribute to OhmyNews, but only after agreeing to their code of ethics by promising to always use facts and to not defame anyone. From the 150 to 200 articles received per week, around 80% were usually published. The reporters whose work was accepted received a small fee (around US$17). Initially, the website started off with 10 full time editors and 700 amateur reporters. This figure snowballed very
quickly however and soon there were thousands of reporters and even more commenters (MacIntyre, 2005). It was this website that gave a voice to young emerging Korean Netizens.

In the same year, future president Roh Moo-Hyun ran un成功fully in a National Assembly election in Busan. Roh ran mainly to make a symbolic gesture, aiming to try and reduce regionalism in Korea (Cho, 2005). He didn’t win a seat but a group of young Koreans inspired by Roh’s idealism created an online support club. They named it Nosamo, an acronym for the phrase ‘those who love Roh’. Nosamo started out with forty members in April 2000 (Cellen-Jones, 2006). One hundred supporters turned up for the official launch at a Korean Internet Café one month later. This event was streamed live on OhmyNews. This began the long, but informal, relationship between the Nosamo group and the citizen journalism site.

5.5.4 Netizens and Sports

The first time the Korean Netizens started to show their growing power was in February 2002 during the Winter Olympics. In past competitions, Korean athletes often won medals in the short track skating events. During the 2002 Salt Lake City Olympics, the leading competitors in the 1,500 metres final were Kim Dong-Sung representing South Korea and Apolo Ohno, a Japanese-American athlete representing the USA. Kim Dong-Sung finished the race in first place ahead of Ohno but was controversially disqualified by Australian referee James Hewish who ruled that Kim illegally blocked Ohno during the final lap (Lewis, 2012).

The Korean Olympic officials asked the International Olympic Committee president for an appeal and announced they were considering boycotting the closing ceremony of the Salt Lake City Games (CNN, 2002). This came at a time when Anti-American feeling was strong in the country due to a series of crimes committed by the U.S Military stationed in South Korea and the growth of a popular movement among young people alleging that the U.S was standing in the way of warming relations between North and South Korea (Becker, 2001). This mixture of factors prompted a large-scale response from Korean Netizens. 16,000 protest emails were sent to the US
Olympic Council, crashing their server and it took them nine hours to restore service. In addition, the Netizens distributed a list of American companies in Seoul on the Internet and sought to begin a campaign to boycott all American products and services. On the popular Daum Web Portal, more than 40 groups that objected to buying U.S. products were created and over 32,000 members joined up. Another portal site, Freechal.com, had more than 30 similar communities with more than 3,000 members. Registration information showed that the majority of participants varied from middle school students to those in their late 20s (Lee, 2002).

Four months later, another big sports event caught the attention of the Netizens again. This time it was the football World Cup in June – July 2002 and it was held jointly by South Korea and Japan (Young and Park, 2002). Large screens were set up in 226 public spaces all over South Korea to allow fans to watch the matches together (including a screen at the traditional epicentre of Korea activism in front of City Hall). The police estimated that 1.4 million Koreans, mostly in their teens and twenties gathered together to watch their second group match against the U.S (Lee and Seung, 2002). The match finished 1-1 and the South Korean scorer celebrated by mimicking a speed skater to show that his goal was in revenge for the incident at the Olympics. Support for the National team skyrocketed after positive results in the first two games and the outdoor crowds jumped to 2.8 million for the final group game against Portugal. A police official said the crowds were the biggest ever witnessed in South Korea, exceeding the peace rally of June 1987 that saw 1.4 million people gathering in 33 cities. Some 6,000 police were on hand to ensure that the gathering stayed peaceful (Choi et al., 2002).

These events were the first time the Internet had been used a medium for organising large groups of people in Korea. The scale of the gatherings illustrated the power of online forums and social media for creating and promoting group activities. At first, the activities were connected to sports events but they did have political undertones due to the nations involved in the key matches. As the online movements evolved, the political aspects of the groups started to become more influential as covered in Section 5.6.1 below.
5.6 How the Korean Netizens became a major force

5.6.1 The Middle School Girls Incident and the 2002 Presidential Elections

During the 2002 World Cup, another significant non-sports related incident took place that initially did not garner much media attention due to the overwhelming focus on the football matches. On June 13th, two middle school girls, Sim Mi-seon and Sin Hyo-sun, died when an American bridge-laying military vehicle hit them north of Seoul while walking to a birthday party. Initially, this story was virtually overlooked by the mainstream media as it took place the same day as both two world cup matches and the Seoul mayoral election. In the days after the event, it emerged that the soldiers involved were on duty and were therefore covered by the Status Of Forces Agreement (SOFA) between the USA and Korea, and could therefore only be tried under U.S. criminal jurisdiction (Dong-A Ilbo, 2002).

Some groups in Korea decided to use this incident as the crux of a new campaign against the U.S Military presence on the peninsula. On June 27th, 2002 a small group of around 200 people set up a stall to generate a petition and gather protest signatures outside the Camp Red Cloud U.S Military base in the city of Uijongbu (Yoo, 2002). While the attention was on the stall, two smaller groups cut holes in the bases fence, chained themselves together and marched through the base with placards. They demanded that the U.S military hand over both the soldiers so that they could be tried in a Korean court without their protected SOFA status (Ser, 2002). The Korean police and U.S Military then removed the protestors, but a number of people were injured on each side and recordings were made of the clashes. This took place at the tail end of the World Cup just after Korea’s exit at the semi-final stage so again it did not receive a huge amount of mainstream media attention. During July, the protest groups started to circulate the protest footage on the Internet and engage in discussions on Internet bulletin boards (French and Kirk, 2002). It was at this stage that the protests captured the emotion of a lot of the young university students that were still riding the wave of national unity generated by Korea’s World Cup success.

Pressure on the U.S Military to hand over the soldiers to the Korean legal system grew based on accusations by protest groups that the army would take care of their
own soldiers using SOFA to avoid a prosecution. In an attempt to placate the groups, the U.S Forces in Korea (USFK) Commander ordered a negligent homicide court martial for the two drivers with Korean media representatives present (Tow, 2003). They invited over thirty observers including members of the South Korean Justice Ministry, the South Korean Ministry of Foreign Affairs and Trade, and from other South Korean non-Governmental organisations (NGOs) to attend each trial. However, the public nature of the proceedings gave the impending trial more attention and it then became an election issue because the date for trial was set for two weeks before the 2002 Korean General Election. This election pitted Conservative Grand National Party (GNP) Leader Lee Hoi-Chang against the political outsider and human rights activist Roh Moo-Hyun (Kim, 2003). The mainstream Korean media supported Lee Hoi-Chang so those supporting Roh Moo-Hyun posted their articles on Ohmynews.

Roh’s Netizen support group Nosama stepped up its activity as the Presidential campaign gained steam. They launched a drive for micro-donations, by distributing piggy banks asking supporters to gather loose change and donate it to Roh’s campaign. The piggy bank drive eventually added up to 10.8% of Roh’s US$7.9 million campaign fund. Roh’s digital campaign was not dependent on the Nosamo group. Online donations contributed 59.4% of his total fund, mobile phone pledges were 4.8% and an automated telephone service drummed up 3.9% (Gomez, 2004). With the backdrop of the election, the impending trial of the U.S soldiers loomed. A left wing group called the Pan National Committee started to dominate the continuing protests, some of them involving violence by both sides. The court martial ran from November 20th-22nd 2002. Rooms with CCTV feeds were made available to service the high level of interest (Son, 2002). Large groups of people also gathered outside the camp awaiting the final verdict.

Sergeants Nino and Walker were judged to be not guilty of negligent homicide in two verdicts determined separately by the two court martial panels on Wednesday, November 20th and Friday, November 22th, 2002. This triggered a reaction from the Korean protestors who had been demanding a guilty verdict (Lee, 2002). The South Korean Justice Ministry announced that they were not satisfied with the decision, but that they accepted the legal process that was used. Netizen journalists and commentators then took to Ohmynews in large numbers. On the 27th November, this
led to one citizen reporter called Ang.Ma posting the following call for action on Ohmynews and a number of other websites (Han, 2011).

‘It is said that dead men’s souls become fireflies. Let’s fill downtown with our souls, with the souls of (victims) Mi-seon and Hyo-soon. Let’s become thousands of fireflies this coming Saturday and Sunday. Let’s sacrifice our private comfortable lives. Please light your candle at your home. Let’s walk in Gwanghwamun holding a lighted candle.... Let’s fill Gwanghwamun with our candlelight. Let’s put out the American’s violence with our peace.’

One of the main points of contention was that the US had not expressed regret for the incident so President George W. Bush sent an apology message for the girl’s deaths to President Roh. This was in addition to previous visits made to the families of the two victims by U.S military representatives, and financial compensation that was sent to the girl’s family, as is the Korean custom. However, these gestures did not appease the groups. Some reporters on OhmyNews continued to write inflammatory reports claiming that the soldiers murdered the girls deliberately. Early on the following Saturday, the Pan National Committee held a rally attended by 1,000 students and other individuals in downtown Seoul. Speakers demanded that the U.S. military reconsider the acquittals and change the Status of Forces Agreement (BBC, 2002). Later that night, ten thousand people gathered for the first vigil. This was followed by more vigils in seventeen Korean cities around the country.

The media attention continued to grow and the number of online visitors per day accelerated rapidly to all sites covering the protests, reaching into the high millions when major news stories were published. Ohmynews was the first port of call for many Netizens and they registered close to 20 million hits a day at the height of the situation. Also, 23,000 messages were posted on the Pan National Committee electronic bulletin boards in protest of the not-guilty verdict and 140,000 protest messages were posted on the bulletin board of Daum, a major search engine in Korea (Yeo, 2010). Internet activists also attempted to flood the White House, U.S. President George W. Bush and Vice President Dick Cheney’s e-mail systems but they did not manage to crash the mail servers.
The next weekend the protests grew further, and on December 9th, 20,000 people gathered near the Gwanghwamun intersection of downtown Seoul. Several thousand more people in thirty cities across the nation also held rallies. Some journalists in the Korean media noted that the rally was similar to the gathering to support the Korean football team during the World Cup in many ways (Steinberg, 2005). Even the ‘Dae-han-min-guk’ football cheer was modified into a call demanding changes to the SOFA agreement. While all of this was going on, public opinion also swung towards Roh Moo-Hyun in the presidential election campaign based on his loose association with left leaning groups and the Netizens. Around the same time, the Korean National Police announced that they concurred with U.S military investigators that the deaths of both girls was an accident.

However, the protests continued. A group known as ‘The People`s Counterplan Committee for the Death of Middle School Girls by the US Army Armored Car’ held a photo exhibition about American soldiers crimes in front of the White House in Washington. They also brought a letter for President Bush allegedly containing the signatures of 1.3 million people with the following demands (Shin, 2002):

- ‘Make the deceptive not-guilty decision against the American soldiers invalid’
- Transfer the criminal trial right to the Korean Government to punish the two American soldiers in a Korean court
- Amend the unfair nature of the SOFA agreement’.

The protests peaked on the weekend before the Presidential Election with almost 100,000 people gathering in Seoul and 300,000 in total around the country. A Globescan poll of media habits at the time found that 34% of Koreans named the Internet as their most important source of news, with 38% saying they trusted blogs - higher than in any of the other countries surveyed (Im, 2002). Ohmynews was running their site at this time with just 41 full-time staff, but 23,000 citizen reporters were active close to the election time.

Despite the ongoing civil unrest, the election took place as scheduled on 19th December 2002. As the opinion polls suggested, the momentum had swung to Roh
Moo-Hyun. He got 48.91% of the vote compared to Lee Hoi-Chang’s 46.59%. The election had a high turnout with 70.8% of eligible voters (24,784,963) taking to the polls (Reporters without borders, 2003). In order to acknowledge the role of the citizen journalists in his campaign, Roh gave his first post-election interview as an exclusive to Ohmynews only. This inspired Oh Yeon Ho, the founder of Ohmynews, to declare that in the battle between the conservative media and the Netizens of Korea, the Netizens won (Kim, 2004).

After the election, the candlelight protests quickly lost their momentum. The police announced a ban on the protests from January 3rd 2003 onward as the National Police Agency announced that the vigil had changed from purely a memorial event into violent anti-U.S demonstrations (Lee, 2003). A Gallup poll taken at the time discovered that 75% of South Koreans in their 20s indicated that they disliked America while Sixty-seven percent in their 30s and half of those in their 40s indicated that they either ‘did not like’ or ‘hated’ the U.S (Pew Research, 2002).

Even though the protests fizzled out in the centre of Seoul, smaller fractured groups continued their campaigns outside U.S military bases and in other locations around South Korea (Kang, 2004). As many of Roh Moo-Hyun’s supporters were connected to student unions and Netizen communities, the groups felt empowered after the election and some previously outlawed groups reappeared and took to the streets in front of the bases. At the forefront of these smaller but more militant groups were Hanchongryun (Hankuk Daehak Chonghaksaenghoi Ryunhap) which means South Korean Federation of University Students Councils (Choi, 2005). The group was criminalised in 1999 for Pro-North Korean activities based on their support for a North Korean-led unification of Korea and their plan to encourage Korean college students to overthrow the Government (Gluck, 2003). They had close ties to the North Korean National Alliance of Youth and Students for the Country’s Reunification (known as Pomchonghakryon).
5.6.2 Protests against military involvement in Iraq

The next incident that inflamed the Netizens occurred on June 22\textsuperscript{nd} 2004 when Kim Sun-II, a translator and Christian Missionary was kidnapped and beheaded in Iraq by an Islamist group. The execution was videotaped and distributed on the Internet. While the decapitation was taking place on the video, a statement was read explaining: ‘Korean citizens, you were warned, your hands were the ones who killed him. Enough lies, enough cheating. Your soldiers are here not for the sake of Iraqis, but for cursed America.’ (Freedom House, 2004). At the time Korea had a few hundred soldiers stationed in Iraq but it had just announced its plans to send 3,000 more.

The statement and its inclusion of America provided ammunition to the Netizen anti-American activists so they took to the street again for more candlelight protests. This time however the numbers were smaller peaking at 3,000 people but they, along with their online supporters, forced the South Korean government to postpone sending the troops until a parliamentary vote could be taken (Im, 2005). Despite the delay, on the 13\textsuperscript{th} February 2004, Korea’s parliament eventually voted 155-50 in favour of sending the troops and 1,400 Combat Marines, Special Forces commandos and 1,600 military engineers and medics were sent to the northern Iraqi city of Kirkuk (BBC, 2004).

5.6.3 Other targets of Netizen activism

Not all of the Netizen activism focused on the Korea – U.S. relationship. Another long running example of online activism was the dispute between Korea and Japan on a small group of islets located between the two countries. Korea calls the rocks Dokdo and maintains military control of the area, but Japan calls them Takeshima and claims they are a part of Japan. This problem has flared up regularly online starting from 2005 when Japan's Shimane prefecture set up a dedicated ‘Takeshima Day’. This happened in the same year as the publishing of a set of school textbooks that sought to downplay Japanese activities and war crimes in World War II (Al-Jazeera, 2008). Even though the books were not widely adopted by Japanese schools, it evoked a strong reaction in China, North Korea, South Korea and Taiwan. The Netizens started
to be seen as a very powerful lobby group within Korea at this time. In 2005, of the 90 government decisions taken against the majority Netizen opinion, 43 ended up being revoked (Yu, 2005).

Another long running issue that evoked a response from Netizens was the KORUS Free Trade Agreement (FTA) negotiations that started in 2006 between South Korea and the U.S. On Wednesday 12th of July 2006, 25,000 protestors took to the streets against the FTA (Third World Network, 2006). Many of the Korean Netizens felt that entering FTA negotiations with the U.S and sending the soldiers to Iraq were betrayals by President Roh. They voted for him as part of an anti-American movement but after getting into power, he did not manage to force a revision of the SOFA agreement or arrange the reduction / removal of U.S troops that they had hoped for during his time in office. In addition, Roh received criticism for domestic policies because of his inability to stimulate the Korean economy, and by the end of 2006 his approval rating had dropped to just 11% (Choe, 2008).

Another move that Netizens felt was a betrayal by President Roh was the implementation of the Korean Internet ‘Real Name Registration System’. This measure was implemented in July 2007 requiring users of websites that have over 100,000 members to enter their resident registration or credit card number before commenting. This meant that comments had to be made using real names and the aim was to force Internet users to be more responsible when posting messages. 146 websites fell into this category at the time (Lee, 2011). The list contained the YouTube video sharing webpage, but the website's U.S.-based owner, Google, decided not to ask their Korean customers for their ID numbers. Instead, they simply blocked users from uploading videos to YouTube Korea. Users could then bypass the rule if they changed their location setting to ‘worldwide’. Eventually even the Korean president’s office maintained its YouTube channel using this workaround.
In 2007, it was again time for Presidential Elections in South Korea. The 17th South Korean presidential election was held on the 19th December 2007, and this time the winner was Lee Myung-Bak from the Grand National Party, meaning that conservatives returned to the Blue House for the first time in a decade. Lee won by the largest voting margin since direct elections were brought back to Korea in 1987. This came as a huge blow to the Netizens as it re-installed the power of the old order and the traditional media (Sa, 2009). The Netizens felt disenfranchised and they quickly prepared to rise up against the new president. They dubbed Lee Myung-Bak, 2MB. His family name Lee has a similar pronunciation to the number two in Korean. Therefore, 2MB had a double meaning because it also sounded like ‘two megabytes,’ which was meant to be an indication of the president's limited intellectual capacities (Hankyoreh, 2008).

A new set of protests began in May 2008. The trigger this time around was the lifting of the Korean ban on the importation of U.S beef. It built upon some of the earlier unrest from the ongoing FTA negotiations between Korea and the USA. Earlier in December 2003, South Korea along with Japan, Singapore, Malaysia and Taiwan blocked imports of US beef when tests on a 6.5-year old cow proved positive for BSE (also known as Mad Cow Disease). On 18th April 2008, U.S. and South Korean representatives agreed new sanitary standards for U.S. beef imports (Applebaum, 2011). Protest groups accused President Lee of removing the block on U.S. beef imports too quickly, despite the alleged health risks, so that Korea could quickly make an FTA with the United States.

On 27th April 2008, the MBC TV Channel aired a broadcast entitled ‘Is American Beef Really Safe from Mad Cow Disease?’. This inspired a Netizen called Baek Seong-geun to set up a website called MichinCow.net (Michin means mad or crazy in the Korean language) on May 3rd calling for street protests (CCDM, 2009). Then, one high school student started a petition on the Agora online discussion forum demanding an impeachment for President Lee. The petition received 1.3 million signatures in just a week (Sa, 2009). This protest saw another innovation from the Korean Netizens. This time some websites offered live streams of the protests with
broadcast jockeys (BJs) providing live commentary and they started to refer to the gatherings as Web 2.0 protests. One clip of the police assaulting a female protester was widely circulated on the Internet and the angry backlash encouraged more people to take part in the rallies. It became the country's biggest anti-government protest in two decades (Solis, 2008). Attendance peaked on the 10th June 2008 with 80,000 protestors in attendance before declining and finishing in mid-July. This time around the Government took a hard line against protestors and many were arrested and imprisoned for short periods.

The end result of the protests was that talks on the beef deal were postponed, Lee Myung-Bak’s approval ratings dropped to less than 20% and his entire cabinet offered to resign. On 22nd May and 18th June 2008, President Lee apologised during televised interviews for ignoring public health concerns (Cho, 2008). The backlash against the mainstream media that brought the issue to the surface began when a complaint against the broadcasted ‘facts’ was lodged by the Korean Department of Agriculture. The Seoul Central Prosecutors' Office investigated the program's content and a lawsuit was filed against MBC. On the 12th August 2008, the Korea Communications Commission demanded that MBC issue an apology for factual errors included in the program (Korea Times, 2009). MBC apologised, saying that six translation errors were committed and that a certain cow had been falsely described as having BSE in the report.

Another law came into effect in July 2009 that was seen as a further attempt to control Netizen activism. This law designated Cyber Defamation as a criminal activity punishable by up to two years in prison. In most countries defamation is classed as a civil offense based on the damages caused by the information disclosed. Critics attacked the law saying those in power would use it to curb freedom of speech and control political dissent (Kang, 2009). A unique feature of the new law in South Korea is that the truth is not counted as a valid defence. If the distributed information damages the reputation of an individual or business it can still be classed as a crime even if the information is true. However, if the defendant can prove that circulating the information is in the public’s interest, the truth can be used as a valid defence.
5.7 Cyberbullying and the Real-Name registration systems

Other common targets of Netizen comments are Korean celebrities and those who appear in viral videos. These interactions usually take place entirely online but they can become quite aggressive and have been described as a form of mob cyber bullying (Korea Times, 2009). An example of this was the suicide of the famous actress Choi Jin-Sil and her ex-husband Jo Sung Min in 2008 after they had been subjected to a stream of online accusations about her alleged involvement in the suicide of actor Ahn Jae-Hwan. This was followed by nine additional celebrity suicides within a year where online criticism and pressure was identified as a contributing factor (Cho, 2008).

One problem associated with the requirements to enter personal data to interact with Korean websites is that it provides a tempting target for hackers. In 2011, this problem hit the limelight when data on 35 million users was compromised from two well-known websites (Chosun Ilbo, 2011). This led to action against the Korea Communications Commission and in December 2011, the Government was forced to end online registration systems that demanded resident registration numbers. Then, in August 2012, the law forcing South Korean users to enter their real names on websites to comment was also overturned by a panel of judges who said it restricted freedom of speech and undermined democracy (BBC, 2012). Data collected during the real-name restrictions suggests that it was ineffective in reducing online abuse. In a study carried out by the KCC, they discovered that malicious comments comprised 13.9% of all comments posted on Internet threads in 2007 but the real name regulation system only led to a 0.9% reduction in 2008, a year after the regulation went into force (BBC, 2012).
5.8 Conclusion

Based on the evidence presented in this Chapter, Korean Netizens are now a significant social influence in the country. They are involved in shaping public policy, business decisions, elections and the entertainment industry. The Korean Government is now acutely aware of the consequences of crossing swords with large Netizen Groups. As seen in the reaction to the U.S Beef protests, the Netizens were the engine room of the movement that forced the large majority of the Government Ministers to step down. Their support was also the catalyst that swept Roh Moo-Hyun into the Presidency in 2002.

Netizen campaigns on the Internet are always starting and disappearing in a constant flux. Occasionally, when the right circumstances come together, a campaign can grow into a large-scale event that can become nationally significant. It is not a coincidence that the biggest movements nearly always include a perceived threat to Korea from other countries. Specially, the trigger for the biggest reaction has usually been U.S involvement in an incident. Many young people in Korea do not trust the intentions of the U.S Government in Korea, and some also fear that the growing influence of American Products in their country is a form of cultural invasion and occupation.

A detail that comes as a surprise to many external observers is that North Korea tends to not be a country that riles up the Netizens. For example during 2013, North Korea threatened nuclear attacks against South Korea, Japan and the U.S, cancelled the 1953 Armistice, closed the Kaesong Industrial Park joint venture and severed all communications between their southern neighbours but the Netizens were relatively quiet. There are two main reasons for this. The first is because South Korean people have heard so many threats from the North over the years so they do not worry much about it anymore. The second is because of the Minjok philosophy. This is the idea that Korean people have the same blood and therefore would not attack each other unless pushed by foreign powers as happened in the Korean War.

The Korean Government has attempted to take measures to try and control Netizen activities. One of the measures was the real name commenting system. The second was the enactment of the Cyber Defamation Law. Both of these laws were resisted
strongly in Korea with the first one eventually overturned. The enactment of these laws show that the Government saw the Netizens as a real threat that they felt they needed to control.

In summary, Netizens are now a central and fundamental part of South Korean society. When a product or service succeeds or fails today is now often down to how the Netizens view it. They also influence public policy making. From the examples shown above, it is apparent that the Netizens are territorial and very nationalistic. Logically, this Nationalism often manifests itself as a push to protect Korea’s land, culture and products against perceived outside threats. They were strongly against the FTA agreement with the U.S for this reason. As the Netizens grow older, they will most likely move into positions of power in the country. This may be happening already, as the Netizen Groups of 2002 are now over a decade older. It is likely that these individuals would still be somewhat suspicious of external influences and pro-protectionism.
Chapter 6

The Battle for Office Suite Dominance in South Korea
Chapter 6: The Battle for Office Suite Dominance in South Korea

6.1 Introduction

An interesting case study that provides a good illustration of the Korean ICT Business environment is the struggle for market domination in the Word Processing and Office Suite area. This is significant because it shows some of the barriers that international companies face when entering South Korea. The Word Processing battle illustrates this perfectly, because it involves a small domestic Korean software company going head-to-head against one of the largest MNCs in the world. It also shows the influence of national pride, politics and public perception in Korean business and how important it is to be aware of sentiment before making key decisions.

This Chapter begins with a look at the birth of the Hancom company, which was based on Hangul, the Korean writing system, and therefore has a connection to an important symbol of Korean culture. This company got a head start in the area before the global word processing giant Microsoft arrived in Korea with their dominant Word program. This Chapter will show how initially Microsoft lost out to Hangul Word but then they saw an opportunity when its parent company got into financial difficulties. Microsoft then attempted a takeover of Hancom, but this triggered a national outcry because of the symbolic significance of Hangul. The ensuing campaign managed to rebuff Microsoft’s moves and keep the company going amid a media storm. Then, the battle for control of the market continued with a series of price and public relations wars.

Next, this study will show how Hancom overstretched themselves with various ventures and got into financial trouble again. This time they were forced to sell a proportion of their shares to investors in Hong Kong and Singapore but this time it did not trigger a backlash. This Chapter will also show how the Korean Government opted to mandate that Hangul Office files would be the only system used for official
documents that need to be filled in. This move protected Hancom and ensured that their core business was protected.

Not long after this move, the Korea Fair Trade Commission decided to pursue Microsoft on charges of attempting to bundle packages with Windows and stifle trade. In the context of the earlier decision to mandate the use of Hangul Office for Government documents it was seen as a double standard by some. The study then moves on to have a look at one of the effects of the FTA between Korea and the U.S. The agreement on intellectual property allowed companies like Microsoft to start chasing organisations using their software illegally through the courts. Some examples of the cases and their resolutions are presented as illustrations of the proceedings.

6.2 Representing Hangul Digitally

The Korean script, Hangul, is distinct from other East Asian languages as it uses independently created characters, whereas Japanese and the various Chinese writing systems are mostly based on ancient Chinese characters (Fouser, 1998). The writing system allowed the Chosun Monarchy to break the elitist grip the powerful Yangban families had at the time on education and information due to the difficulties associated with learning more complex Chinese characters. It also was a symbol of Korea’s cultural independence from China during the many Chinese and Mongol invasions and occupations of the Korean peninsula. Later the Hangul script was threatened during the Japanese Annexation of Korea when Japan attempted to impose their writing and family name system on Korea in the late 1930s. This made Hangul a symbol of Korean national pride, independence, and patriotism. When Korea regained its independence at the end of World War II, a new annual National Holiday called Hangul Day was announced (Fouser, 2012). This is held on October 9th each year to celebrate King Sejong’s unveiling of the new characters.
The Korean language was excluded from many of the earliest attempts to display languages on computers as it was considered to be a niche market for one country only. The breakthrough in displaying Hangul on computers came from within Korea. The person behind this achievement was Lee Chan-Jin, a former Seoul National University Mechanical Engineering student, in the late 1980s (Choi, 2007). Lee quickly realized he had a good potential business with his creation, and on Oct. 9th, 1990, he established a Korean language Word Processing program as part of a company called Hangul and Computer. The owners later decided to change their company name first to Haansoft, and then later to Hancom in 2010 (Hancom, 2012). The company called the Korean language Word Processing Program, Hangul, or sometimes Ah-Rae-Ah Hangul, in English. Coincidentally, this was the same year that Microsoft first began to offer Korean language support through MS DOS and later Windows 3.0 (Microsoft, 2004).

Based on its ability to effectively display and edit Korean text, along with its symbolic significance, the new program moved into a strong market position. After it’s release in 1990, Hangul reached sales of one billion won in 1991, before progressing to 10 billion won in 1993 by adding over 100,000 registered users (Sims, 1999). One major advantage the new company had during this period was that Microsoft did not even have a branch in Korea at the beginning of the 90s. Microsoft’s first office in Seoul opened in 1992, but by this time the American Company was already well behind in the Desktop Office software area in Korea.

6.3 The arrival of Microsoft Word to South Korea

To compete with the success of Haansoft, Microsoft tried to create ties with the Korean business and academic communities. In 1994, the then CEO of Microsoft signed a source code licensing agreement with the Korea Advanced Institute of Science and Technology (KAIST), one of Korea’s top technical universities (The Korea Herald, 2003). Then, in June 1997 he went to Korea again to deliver a
presentation to the Chief Information Officer (CIO) Forum, organised by the Federation of Korean Information Industries (Leganza, 1999).

Meanwhile, the surge in Hangul Word Processing program usage continued and by 1997 Haansoft had attained a 60% market share for domestic users. The success of the company was a source of pride in Korea leading to the software winning the media-voted Hit Product of the Year award for 1995, 1996, and 1998, the 13th Venture Society Grand Prize of 1995 and the New Software Product Grand Award from the Association of Korean I.T Industries (Kirk, 1998). All this attention meant that Lee Chan-Jin became a very high profile figure in Korea. His status allowed him to branch out into the world of politics and he even managed to win an election to become a member of the Korean National assembly.

At the same time, Microsoft were the clear global leader in the industry with their flagship MS Word program, but they only had a 30% market share in Korea for word processor usage. One technical difference between the products, that Haansoft used as part of their marketing campaigns, was that their program was able to display over 11,000 combinations of the Korean language's phonetic characters, compared to Microsoft Word's 2,500 (The Register, 1998). The default filetype of Hangul is HWP format, with the filename extension *.hwp. Early HWP files up to and including Hangul 97 could be opened with the OpenOffice Suite but they had to be converted for Microsoft Word use (Hancom, 2013). These conversions often resulted in formatting errors that made the files almost unusable and effectively forced users to purchase a copy of Hangul to work with HWP files.

On the surface, the market dominance looked like a huge success for Haansoft but the figures masked a serious problem. As with a lot of the software of that era, the licensing and security systems were basic, and it was easy to pirate and copy the program. Furthermore, enforcement of Intellectual Property Laws for software use in Korea was also a relatively new area, so the legal route was often not a practical option. One of the Haansoft executives disclosed in a 1998 press conference that an estimated 80% of the software in use throughout Korea at the time was pirated.
Another issue was that Haansoft had unsuccessfully expanded into new business areas without first stabilising the company’s financial situation, which further stretched their finances. On May 13th 1998, the company dishonoured promissory notes worth KRW250 million. On May 21th, another arm of their business, Haansoft Service, also dishonoured its notes and could not pay employees' salaries for three months in a row (Bae, 2002).

6.4 Microsoft’s attempted takeover of Haansoft

6.4.1 Discussions behind the scenes

The financial problems at Haansoft became public in 1998 at the height of the Asian Financial Crisis, when the company disclosed that they had built up over US$10 million of debt and were on the verge of collapse (Lee, 2000). A takeover by Microsoft at this time would have allowed them to attain a virtual monopoly of the Korean word processing market, so negotiations started off between the heads of Microsoft Korea and Haansoft on June 8th, 1998. According to the former Microsoft Korea General Manager, Lee Chan-Jin of Haansoft initially suggested selling the intellectual property right to his word processor software, as he needed operational funds (Chosun Ilbo, 1998). Instead, Microsoft Korea’s representatives suggested to Haansoft’s owner that Microsoft would like to invest in his organisation and change the business strategy of the company. Haansoft showed an interest in this suggestion so the next step involved forming a team led by the law firm Kim & Chang to arrange the details of the deal.6 (Kirk, 2001).

At a meeting held on June 15th 1998, in front of a large media audience, Haansoft and Microsoft Korea signed a Memorandum of Understanding (MOU) that confirmed the Korean company’s plan to discontinue its Korean word processor software in return for Microsoft's investment. At around the same time, Microsoft’s CEO was on a visit to Korea. He told the then Korean President about his investment plans in Korea.

6 Perhaps sensing that this would be an unpopular decision, Lee Chan-jin resigned as a member of the National Assembly while the negotiations were going on
explaining that Microsoft actions would help the country out of their financial crisis. During the subsequent press conferences, the Korean Information and Communication Minister made it clear that the Government would never be involved in business activities. This was seen as a gesture to clear the way for Microsoft’s investment. In order to try and ensure a positive profile for the company, Microsoft’s vice-president also announced a US$77 million software donation to Korean schools and institutions as part of a promotional tour (Weekly Chosun 2000).

Microsoft’s offer was that they would make a US$20 million investment in Haansoft on the basis that the Hangul Word Processing Program would be entirely withdrawn from the Korean market. The US$20 million would then entitle them to 19% of the company and they would steer the business in new directions with Haansoft becoming a reseller for MS Products. A PR executive with Haansoft said that with the help of Microsoft’s investment the company planned to move away from packaged software into the Internet infrastructure business area (Nakarmi, 2000).

6.4.2 The Campaign to Save Hangul

The idea of a foreign company taking control of the word processing business in Korea’s own language when the country was at a low ebb due to the financial crisis stuck a nerve with the local media and Government, and it inspired an immediate and intense backlash. 1998 was the year that the Korean economy saw a 6% contraction in GDP. Conversely, Microsoft was at the peak of the software industry with a US$260 billion market valuation that was not very far behind the value of the entire Korean economy (US$317 billion in 1998). This also took place just before the global dotcom crash affected technology companies all over the world. Microsoft would have been paying the equivalent of what it earned in two days in exchange for virtually complete control of the Korean Word Processing market (Kim 2007). It was in this environment that a group called ‘The Committee to Save Hangul Software’ was established on June 22nd by local entrepreneur Lee Min-Hwa explaining that he planned to fight to save Haansoft from foreign involvement.
Lee Min-Hwa was the founder of the Korea Venture Business Assn. (KOVA) in 1995 and the CEO of a successful medical devices company called Medison (Cho, 2011). His new group was supported by over 15 civic organisations including the Hangul Society. One of their announcements at the time read ‘If Haansoft gives up Hangul software, it will be a tremendous loss for the country. The entire business will be taken over by Microsoft, and people will have to learn MS Word.’ The indirect suggestion of the statement was that Haansoft were exhibiting a lack of patriotism by selling one of Korea’s cultural treasures, their unique Hangul writing system, to a foreign company. The group set out to explore alternatives to the Microsoft proposal. One example of the suggestions made was to open the Hangul program source code and develop an all-Korean word processor product that could serve as its replacement. The leaders of the ‘Save Haansoft’s Korean Software’ movement also met Microsoft Korea’s president directly to request that they back out of the deal (Sims, 1999).

### 6.4.3 The Hangul Venture Company Committee

The next step in the Korean group’s campaign against Microsoft was to set up the Hangul Venture Company Committee. The aim of this group was to raise enough funds to keep Haansoft afloat and avoid the need for Microsoft’s investment. Lee Min-Hwa announced that ‘Lee Chan-Jin and his staff must fight until the end’ in a newspaper interview. He also presented a report suggesting that the cost to retrain all Korean users on Microsoft software could surpass the US$14 million debt of Haansoft. Meanwhile, Korean newspaper editorials were published branding Microsoft’s CEO a colonialist and a survey of Korean college students, asking which celebrities they admired most, placed Haansoft’s founder Lee Chan-Jin in second place while the chairman of Hyundai came in first. In a media interview, the Haansoft founder said that the Hangul Venture Company’s aim was ‘flattering but unrealistic’ and asked for more time to negotiate a deal with Microsoft and avoid bankruptcy (Chosun Ilbo, 1998).

The Korean Venture Business Association fundraising campaign reached out to both Korean businesses and individuals and managed to raise US$7.3 million, approximately two thirds of which came from association members with one third from Korean individuals. At the same time, Haansoft and Microsoft Korea continued
the takeover negotiations until July 16th, in spite of widespread public opposition. They agreed to sign the final draft on July 20th and Microsoft Korea closed their offices for two days holidays starting from July 17th for Constitution Day.

6.4.4 The restructuring of Haansoft

However, within Haansoft there was a growing internal conflict. Haansoft Service’s president was against the Microsoft plan and he persuaded director Chung Nae-Gwon to join him. Between them, they succeeded in forcing Lee Chan-Jin to bow to public pressure and back out of the turnover plan at almost the last minute. They did not immediately inform Microsoft of their change of plan and Microsoft’s CEO was already en route to Korea to announce the deal at a prearranged press conference as part of a two-day promotional tour that included meetings with the Korean President. The press conference was still held on July 20th but Haansoft’s founder surprised the assembled reporters and Microsoft visitors by announcing his final decision not to accept their investment offer (CBR, 1998). Instead they outlined their intention to go with the offer from the Save Haansoft’s Korean Software movement and try to turn the company’s finances around.

As part of the powershift within Haansoft that led to the strategy change, the Haansoft founder, Lee Chan-Jin, was forced to transfer to the position of CTO (Chief Technological Officer) from CEO and on July 27th, 1998, Jeon Ha-Jin was chosen as his replacement. The first action of the new CEO was to try and capitalise on the national pride movement that had been created by rebranding their word processing software and re-releasing it with the name ‘Hangul 815’. The ‘815’ referred to August 15th, the day that Korea was liberated from Japan’s colonial rule (Tan et al., 2010). Then, on October 19th 1998, the Save Haansoft’s Korean Software movement officially dissolved as they announced that their campaign was finished.

The company quickly ran into more problems because some of the money pledged by individuals towards the Save Haansoft’s Korean Software campaign did not
materialise. This meant that Lee Min-Hwa, the chairman of Medison, was forced to increase his investment to cover the shortfall making him the largest shareholder of Haansoft. The new company power base decided to restructure the company aiming to refinance the company's debt and reduce its costs. Haansoft’s workforce was reduced by 10% and their unprofitable businesses, including publications, educational programs and hardware distribution were shut down. Research and development efforts were also significantly downsized (Ko, 1999). However, these changes did not sit well with founder Lee Chan-Jin and he left the company in 1999 along with a core group of engineers and developers.

6.5 Office Price Wars

In 1998, Haansoft participated in a national campaign to reduce software piracy in Korea. The campaign encouraged businesses, organisations and individuals to destroy pirated copies of their software and buy legitimate ones. To facilitate the purchases of legitimate copies, Haansoft cut their prices and began selling their software in places as diverse as banks and supermarkets. The campaign was a success and the company managed to sell a record 700,000 copies. The company then established a Haansoft Internet service for Hangul Word users in mid-1998. A countrywide publicity drive to advertise Haansoft and their new online E-Commerce website managed to attract more than 500,000 subscribers (Bae, 1999).

In August 1998, just one month after their failure to purchase Hangul, Microsoft released a Korean version of Windows 98. However, they only managed to sell 27,000 copies in the first four days which was more or less the same amount as the Windows 95 launch sale three years earlier and was seen as a disappointing return (Meier, 2005).

Another new strategy of Haansoft at the time was to expand into the Internet business area. In 1999, the company opened a new portal website called Netien and successfully conducted a W10 billion takeover bid for the Hanulsarang chatting
website immediately gaining access to their 350 million accounts. They further expanded their offerings by establishing an Internet service sister company called Yecar. As Korea’s economy recovered quickly from the 1998 crisis, Haansoft’s share price increased to KRW40,000 in 2000 from its earlier junk valuation (Lee, 2000). Medison's investment of KRW5 billion jumped up to KRW120 billion and their intervention was initially seen as a big success.

Microsoft determined that the best way to compete with Hangul Word was to develop Microsoft Word's ability to display Korean characters, so they released a new version of Word 2000 in January 1999 that addressed this. Microsoft explained it was now able to display 11,172 Korean syllables, 1.6 million old Korean characters and 27,000 Chinese characters, which now placed it technically ahead of Haansoft’s Hangul Word. In October 2000, Haansoft launched their rival Hangul upgrade called Wordian (Korea Times, 2000). User reviews of the new program were largely negative, and many Korean customers decided to purchase Microsoft Word this time around. This came as a major blow to Haansoft.

One of the reasons why Microsoft gained market share with Windows 2000 was because they gave large discounts for MS Office use in Korean Universities and Schools. Student licenses for MS Office at the time were often priced at around US$20 per head. This was taking place at the same time as new Internet licensing techniques were emerging that made it more difficult to distribute illegal software. One high profile example of the changing business environment was when a Seoul Court fined the majority-Government owned Korea Electric Power Corporation (KEPCO) KRW10 million in 2000 for using pirated versions of Microsoft programs (Korea Times, 2000).

However, the reduced academic prices also had a slightly negative outcome for Microsoft as individual software buyers still had to pay the full price. The result was that Microsoft’s own software resellers held public protests in Seoul against the company. Also, Haansoft accused Microsoft of using dumping tactics by selling software at 10% of the market price to certain user groups. This became a big PR
problem. The consumer sentiment problem was illustrated in mid-May 1999 when the Korea Times ran a story with the results of a study showing that 87.2% of Korean users indicated that the Windows operating system was ‘unsatisfactory’ but they felt they had no choice other than to keep using it (Korea Times, 1999).

Microsoft responded to dumping accusations by claiming that they created the site license system to sell their software packages at reduced prices to Korean education customers to encourage the installation of genuine software with students. Microsoft then suggested that Haansoft were guilty of their own accusations because they reduced their prices to under US$10 for a one-year license of their program. The Korean Government reacted by saying they planned to open an investigation into business practices in the area (BBC, 2005). With mounting pressure, Microsoft had no choice but to relent and to withdraw its campus license package before the legal decision by the Korean Government was published (Kim, 2005). This was another setback for Microsoft Korea in their attempts to dominate the Korean Office Suite market but it was not a complete disaster because they did manage to increase their market share.

6.6 Government Intervention

The Korean government was caught between pressure from consumers, organisations and the software industry, along with the need to show the world that Korea was open to foreign business in the wake of the financial crisis. At the same time, the Korean Government openly promoted Haansoft’s Word Processor by adopting it for a number of state-run agencies and schools but individual and corporate customers often opted for Microsoft products.

However, behind the scenes, Haansoft was again having financial problems. The Dot-com bubble was bursting globally and their main investors from the Medison Company had run into financial issues with their own businesses. In 2000, the Korean
Credit Rating Company downgraded Medison’s rating to the junk bond category and this prompted the firm to attempt to sell its shares in Haansoft to raise funds. Initially, the shareholders approached Korean Companies including LG Telecom, SK Telecom and Daum Communication but they could not make a deal. As a result, the value of Lee Min-Hwa’s Hancom stock dropped from KRW100 billion to KRW25 billion. Then, Lee Min-Hwa began a search outside Korea in order to make a sale. In November 24th 2000, Medison opted to sell half of their Haansoft shares to Bicus Ballas, a subsidiary of Singapore Telecom for KRW22 billion (Lee 2010). After the sale, Medison was no longer the largest shareholder of Haansoft shares. They were now in fourth place behind Hong Kong’s West Avenue (7.28%), Korea’s Moohan Technology Investment (5.84%) and Singapore’s Bicus Ballas (5.53%).

Despite the shareholder wrangling and financial problems, Haansoft continued to try and expand. The firm now had 23 subsidiaries including Internet Service Provider Netian, Haneul Sarang, Hansoftnet, Yeka Tour and HanCom Linux. The company also tried to expand their core business outside of Korea by signing a contract with BIT Japan Inc. in 2001, to export KRW50 billion worth of their Hangul 2000 Word processing software for sale in Japan. Furthermore, localized versions of Hangul in English, Chinese, Spanish and Arabic went on sale in September 2001. In press releases, Haansoft said that they believed China and the Middle East were now keen to embrace new non-American word processor software (The Korea Herald, 2003).

Most of these expansions met with limited success. In 2002 Haansoft’s operating profit dipped 37% to KRW2.7 billion won in comparison to the figures published in 2001. However, the company persevered with its attempts to move into new business areas. During 2002, Haansoft set up a US branch in Orange County, California under the name Hancom. The company also launched a new version of Hancom Office for the U.S, built with code ported from Linux.

This was also the time when Hangul dispensed with Open Office compatibility. Files made with Hangul Wordian, Hangul 2002, Hangul 2005 and later versions could be
opened with Open Office (Kim, 2007). Also, users could save files in MS office and PDF formats using the ‘Save As’ function in Hangul. However, .hwp files could not be opened directly by any other program without conversions and major formatting problems. Then, local and regional Governments in Korea began to support Hangul Word by making mandatory online forms available exclusively as .hwp downloads. This meant for example that all businesses and organisations, who needed to file tax returns, fill in reports for local councils or apply for Government support, had to get a copy of Hangul Word. This practice is still in place today as of 2014.

6.7 Haansoft explores UNIX and Launches Cloud Based services

From their new regional base in the U.S, Haansoft acquired Thinkfree in December 2003. Thinkfree was a small Korean-American Company, founded in 2000, that was working on the development of Portable and Online Java-based Office Productivity products (Wong, 2000). This was five years before Google acquired 2Web and Writely in 2005/06 and went on to produce the cloud-based Office Suite, Google Docs / Drive (I.T Reviews, 2006). This turned out to be one of Haansoft’s more successful branches as it had a direct link to their core products. As of 2012, Cloud or Server based versions of ThinkOffice are still available as packages to run alongside Hangul Office.

Another one of the avenues that Haansoft ventured into during this time was UNIX. The company’s aim was to create a Korean Operating System and compete with Microsoft’s Windows System. To do this Haansoft established an affiliate organisation called Hanscom Linux. In January 2002, the new affiliate announced that the Korean Government had procured 120,000 copies of Hanscom Linux Deluxe 2.0, which came bundled with Hancom Office. This office suite included the updated version of Hangul Word along with Spreadsheet and Presentation Programs. The Korean government also outlined plans to migrate 23% of their computers to a non-Windows platform in subsequent years but this plan was never fully implemented. One of the problems with Haansoft’s move into the Linux area was that they were not
just competing with Microsoft anymore. The company sold their Operating System for about W150,000 but a free Korean language version of Ubuntu was also available which appealed to the same user base. Hanscom went bankrupt in 2004 (Bodnar 2004). After that time, the Hanscom Linux development team was merged back into Haansoft.

While Haansoft was trying to find new business areas, Microsoft continued to try and expand their Office Suite market share in Korea without huge success. They encountered more problems in 2005 when the Korean Fair Trade Commission (KFTC) followed in the footsteps of the E.U and launched an inquiry into whether the bundling of a media player and instant messenger services in Windows, along with the availability of Windows Media Services as an optional extra within the Windows Server operating system, was in breach of Korea’s Fair Trade regulations. The result was that Microsoft were ordered to produce separate packages of Windows after reaching a US$32 million settlement with the South Korean Government (Chosun Ilbo 2005).

In 2007, Haansoft opted to return to the world of operating systems. This time, Haansoft joined a venture called the Asianux project, aiming to create a customised version of Red Hat Linux for certain scenarios (e.g. databases, clusters or backups) and sold as a complete package to the East Asian region. The Asianux iniative was originally started by Red Flag Co., Ltd. of China and the Miracle Linux Corporation of Japan in December 2003 (Asianux, 2013). This project was more durable than Haansoft’s earlier attempts and the most recent version, Asianux 4.0, was released in 2011.

Towards the end of 2010, the digital playing field started to change dramatically when Cloud Computing and Mobile devices emerged. Hancom attempted to react to the new landscape by forming new partnerships. The most significant of these was a deal struck in 2010 with Samsung to provide Thinkfree Mobile services as a pre-installed Android App on the Galaxy S Smartphone and later the Galaxy Tab in many regions (Collin, 2012). As of 2012, ThinkFree Mobile came pre-installed with over 55
million of Samsung’s Android-based mobile devices. Hancom also created partnerships with other mobile device companies, including LG, Pantech, Qualcomm, ARM and Toshiba. As of 2012, Hancom employed over 320 people and they were profitable for nine consecutive years. Hancom stocks jumped 130% in 2012 compared to 2011 (Kim, 2012).

6.8 Chasing pirates

During recent years in South Korea, Microsoft has continued its policy of attempting to aggressively pursue software pirates. In 2010, Microsoft’s CEO announced a US$60 million deal after a meeting South Korea's president at the time. This deal promised training for software developers, support for venture companies, and the establishment of a technology research centre near Seoul (Woo, 2010).

At the same time, Microsoft became embroiled in a large legal battle with Korea’s Defense Ministry. The Korean Department of Defence entered discussions with Microsoft Korea over a demand for KRW200 billion that the company said they were owed for connection to their servers and illegal use of software applications. Microsoft made requests to the military asking for data on the total number of PCs used by the Korean armed forces, along with an accurate report on which software applications were in use on them. Microsoft provided evidence that 210,000 computers from the South Korean military were operating using partially unlicensed software. Based on April 2012 server data, Microsoft estimated their losses at KRW201.1 billion (Chosun Ilbo, 2012). One change that allowed Microsoft and other companies to press their claims in this area was the implementation of stronger intellectual copyright laws as part of the Korea-U.S. free trade agreement.

In 2012, according to the Korea Software Property-Rights Council, software piracy dropped more than 29% from a year earlier. The latest survey named Microsoft Corp. as the biggest victim. Its Windows platform (mostly XP) was illicitly installed in 23,473 cases in 2011. The Hangul Office Suite came in second with 16,990 cases,
trailed by U.S.-based Autodesk Inc.’s AutoCAD design tool with 11,005. By company, Microsoft remained on top with 35,020 cases. Adobe Systems Inc., Hancom and Autodesk followed with 18,550, 16,990 and 14,605, respectively. One third of all software piracy was from products developed by Microsoft. However, in monetary terms, Autodesk suffered the biggest losses of KRW81.3 billion. In 2012, according to the Software Property-Rights Council, the ratio of pirated software stood at 41% in South Korea, while that of most other OECD countries was at less than 30% (Shin, 2012).

6.9 Conclusion

This case study is an example of the rising and falling fortunes of Hancom and their competition with Microsoft. Initially, their Hangul Word program was unopposed in the domestic Korean Market and it took a strong market position. They got to the forefront of the industry without any significant assistance or protection from the Government. However, the company was determined to use their core product as a stepping-stone towards reaching into other areas. These ventures were not very successful financially and it left them in a very precarious financial situation.

Microsoft tried to step in and take over the ailing company and its significant market share in the office area. Microsoft obviously had not considered the cultural significance of the Hangul writing system in Korea and how that was connected to the Hangul Word program. Another important point worth noting is that Microsoft is an American company and as seen earlier in the Netizens Chapter, perceived American cultural imperialism is something that often sparks a strong reaction in Korea.

One mistake made by Microsoft in this takeover attempt is that they were very public with it. Microsoft representatives visited Korea is high profile business trips while the takeover was being finalised before the deal went through. However, their plan backfired as this allowed those opposed to the deal to portray them as arriving to
conduct a takeover of Hangul Word at a time when Korea was already bruised and wounded due to the IMF crisis. There had already been a lot of talk in the media about how the IMF was going to demand that Korea open up to foreign investment and possible takeovers especially in Government controlled sectors that had previously been monopolies.

The scene was set for a real PR problem for Microsoft. Civic groups rose up and joined with investors to try and stave off Microsoft’s approach. They also went public with their campaign to ensure the nationalistic angle could be promoted to the general public. With the huge media attention surrounding the situation, Hancom were left with little choice but to take the offer from the venture group and try to keep the company going. It was a real snub for Microsoft. The lesson to be learned from this situation is not to underestimate the importance of cultural icons and their historical significance even in today’s business world. When certain decisions are made, the result can be a huge patriotic backlash that can tarnish a company’s image in a country permanently. Some Korean people saw it as their civic duty to try and protect the Hangul program against what they thought were the overtures of the ‘American Imperialists’ seeking to ‘grab control of their cultural heritage’.

The ironic aspect of the situation was that only a couple of years later Hancom got into financial difficulties again from unsuccessful over-expansion and they ended up being majority owned by Hong-Kong and Singaporean investment groups. However, because these investments took place less publicly and did not involve American Companies, it only garnered minimal media attention and no public outcry. Also, because the Korean investment company who previously held the majority of Hancom shares retained some of their involvement in the company, it was not seen as a complete transfer of control.

It was around this time that the Korean Government made the decision to only use Hangul Office for official documents. As these files could not be edited using any other program, it forced organisations to buy a copy of the program, providing an
influx of sales for the Hancom and ensured that their core business was protected. This is a prime example of a technical trade barrier erected against Microsoft to ensure that Hancom was protected. This protection potentially offered Hancom an opportunity to expand their business outside of Korea from their domestic base. To date, Hancom have not fully been able to take advantage of their protected status to expand into the International Market. However, they are trying to use partnerships with Samsung in order to piggyback on their international success and get a foothold outside Korea. This will be discussed further in Section 8.7.
Chapter 7

SEED, Active-X and Online Transactions
Chapter 7: SEED, Active-X and Online Transactions

7.1 Introduction

This Chapter centres on the story behind South Korea’s unique online transaction ecosystem. It charts the evolution of an ecosystem involving the Korean Government, Microsoft and Korean I.T Security companies. The study begins by introducing the SEED security algorithm. Korean researchers created this standard because the U.S delayed the release of their newly 128-bit encryption systems for international use. The Korean Government opted to create their own system in the hope that they could provide an alternative to the American standard that could possibly be sold outside Korea later.

The literature presented will show how the SEED security standard was designed for use as an Internet Browser plugin and a law was created so that only companies approved by the Korean Government could create the encryption software. When SEED was created, only two Internet Browsers were in widespread use in Korea, so the plugin inevitably became linked to the fortunes of each of them. In addition, three domestic certification companies started up to provide the software needed for online transactions using this framework. The resulting ecosystem involved a symbiotic relationship between these companies, Microsoft’s Active-X and Internet Explorer.

When one of the browsers went out of business and new browsers entered the market, the plugin system could not be adapted for use for the newer programs. This created a protected and restricted business environment for the lone remaining browser from Microsoft and the three security software companies that provided the encryption plugin. This Chapter will examine how a group of citizens and academics formed a group to try and protest against this walled garden using the Technical Barriers to Trade Agreement from Korea Law. However, the court ruled against them and they were forced to concede defeat on the legal front.

The next event covered here was that Microsoft turned against their own Active-X technology when a number of security holes were identified. This left Korea’s
transaction security system in a difficult situation, as can be seen in Section 7.4 below. Some information is discussed to show how the security problems with the technology also caused a number of problems in Korea. When smartphones and mobile devices started to become widespread, it caused another issue because the consumers wanted to use them for transactions but the technology and legislation could not easily accommodate that.

Another relevant point included here is how the Active-X system moved beyond transactions and became a web design standard for the majority of Korean webpages that required data collection. In addition, this Chapter looks at how the founder of one of the Internet Security companies that benefitted from the system moved into South Korean politics and managed to rise high enough to become a Presidential candidate.

The relationship between Active-X and the security standards locked out other operating systems and browsers causing criticism from those that wanted to use those tools. An outline of one group’s legal moves against the restrictions will be presented in Section 7.3 along with an analysis of the outcome. In summary, this study will show how the worlds of Korean Government, private business, trade restrictions and an International company combined in a situation that provides an important insight into the country’s ICT business environment.

7.2 Early Online Encryption and the creation of SEED

The South Korean Government and banks first started working together on Internet Security standards in 1998 (Lee et al., 2005). At that time, the most common form of cryptographic security system used to protect data around the world was called Security Socket Layer (SSL). However, during 1998, the 128-bit SSL protocol was still a work in progress. It was not finished and approved until January 1999 when the Internet Engineering Task Force (IETF) signed it off for use (Hiltgen et al., 2006). The IETF is an International Standards Body that specializes in TCP/IP security.
This left the South Korean banks in a bit of a difficult situation because Korean National Legislation at the time would not allow the use of 40-bit encryption for online transactions. The scenario was further complicated because the U.S blocked the export of 128-bit encryption technologies until December 1999 due to National Security concerns (Chang, 2003). In order to circumnavigate the delays, the Korean Government instead funded a project by the Korean Information Security Agency (KISA) to create their own encryption standard using a block cipher approach. They named their resulting security algorithm SEED (KISA, 2012). Most other countries opted to wait for a global standard but Korea took a different approach.

In order to run SEED, users had to download a browser plugin. These plugins were bundled with a certificate issued by a Korean Government Certificate Authority. According to the Electronic Signature Law of Korea, only accredited Certificate Authorities were allowed to provide user software for certificate handling (Ministry of Government Legislation, 2012). The user software needed to meet several regulations and technical conditions to achieve accreditation. The logic behind this system was that the Korean Government wanted to ensure their approved user certificates were only handled by approved web browser certificate management and form-signing modules. The certificate issuing authority branched off into their own Government-controlled arm known as the Korea Financial Telecommunications and Clearings Institute (KFTC). This meant that only certain Internet browsers would be able to process electronic transactions (KFTC, 2012). The rules were designed in the hope that the SEED encryption technique could eventually be something that South Korean firms could export and sell internationally as an alternative to the systems controlled and distributed by the U.S.

When SEED was launched, the main Internet browsers used in Korea for online transactions were Microsoft’s Internet Explorer and Netscape (Hankyoreh, 2010). Internet Explorer plugins used Active-X technology whereas Netscape required an NSplugin. Therefore, most of the accredited Certificate Authorities in Korea decided to provide the user software for these two browsers only. In the early 2000s, Netscape use gradually dwindled and then disappeared, both in Korea and internationally, so that left Active-X for Internet Explorer as the sole standard for domestic Korean companies. Another development that happened during this time was that the security
techniques used by the financial websites started to spread throughout the Korean website world. It also created a business opportunity for companies in Korea as they could exclusively provide the programs needed to support the system. Three Korean companies emerged in this niche area; AhnLab, Soft Forum and Initech (Kim, 2010). One big bonus for these companies is that they could bundle their anti-virus or even third party programs with the security installations to drive revenue growth. It quickly became a lucrative market.

Initially, this monopoly on Korean Internet browsing was a good business situation for Microsoft and they supported the system. In November 2003, Microsoft signed an MOU with KISA and on November 22nd 2004, both organisations marked a year of cooperation with a promise to persevere with their attempts to improve the computer security and data protection ecosystem in Korea (Microsoft, 2003). One serious ICT downside to being entirely reliant on one system is when that security wall is breached. This became apparent on 25th January 2003, when almost the entire Korean Internet environment, including banking and stock market systems, became completely paralysed for 9 hours in the wake of a worldwide virus that exploited certain Windows security loopholes (Kim, 2011). Other countries were also affected, but as the market share of Microsoft Windows for client PC’s in Korea was 99.4% at the time, it temporarily brought the Internet in the country to a virtual technical standstill.

7.3 Opposition by the Open Web Group

The security problem prompted the new South Korean President at the time to pledge to diversify the computer ecosystem in the country by encouraging the use of Linux as an alternative operating system. Seven months after President Roh took office, he announced that by 2007, 20% of client PC's and 30% of servers in Korea would be Linux-based (Openweb, 2006). However, this project met with limited success and the status quo continued. The Korean government also introduced statutes to encourage the use of neutral ICT infrastructure. The modified Electronic Signature Act required official certificate authorities to offer certification solutions for Linux and Mac users in addition to Windows users. It also imposed a legal obligation on the
Government to ensure that e-commerce systems were inter-operable. This statute stipulated that the Korean Government must establish and implement platform-neutral Technology Standards for e-commerce. However despite these statutes, the Korean Government continued to grant licenses to Certification Authorities who did not service Linux or Mac users. Therefore, the vast majority of Korean websites, including 100% of Governmental websites, continued to rely on Active-X controls as of 2012 (Cho, 2012).

Some banks in Korea did try to branch out beyond Windows. In 2005, Shinhan Bank provided the EzPlus 2.0 for Mac system, to enable Internet banking services for Mac OS users. Also, Nonghyup bank began to provide Internet banking services for Linux users in 2006. This was possible by installing Active-X emulation middleware onto Linux PCs in order to access their banking site (Kim, 2010). However, these initiatives were only used by a tiny minority of users and did not influence the majority of consumers.

A group of 83 Korean Internet users & academics, known as the Citizens Action Network at Open Web Korea, began a campaign to highlight website accessibility problems when using browsers other than Microsoft’s Internet Explorer. Most of the group’s members were open source programmers using Mozilla’s Firefox or the Opera Internet browser. In late 2006, they decided to take legal action as Microsoft was embroiled in an antitrust case with the Korean Government based on their bundling of Windows Media Player with the Windows OS (Yoo, 2007). The group was led by Professor Kim Ki-Chang of Korea University, who was a well-known critic of the widespread use of Active-X in Korea. They sued the Korea Financial Telecommunications and Clearings Institute (KFTC) for KRW415,000,000 (approximately US$460,000). Professor Kim’s accusation was that the Korean Government legislation on the usage of Active-X plugins for online banking and other public Internet services should be removed, as it was in opposition to fair trade and ‘overly favoured technology from a single company (i.e, Microsoft)’. Translated details of the accusation are shown below (Openweb, 2006):

1. ‘That it is unlawful for a public body to operate browser-specific or OS-specific websites;
2. *That the Government’s decision to endorse MS optimized websites and web security applications is in violation of its treaty obligation under GATT/WTO as they create trade barriers to web browsers originating in other member countries of WTO, such as Norway; and*

3. *That, in view of the market condition and the prevalent web page designing practice in Korea, the government has a duty under Art. 3(1) of the Antitrust and Fair Trade Law and under Art. 4.1 of the Agreement on Technical Barriers to Trade (TBT) to adopt and implement appropriate measures to encourage private entities to comply with international standards in Internet engineering’.*

The outcome of the case was that the Korean Government was found not guilty. The logic of the judgment was that as most Korean Internet users were already using Internet Explorer anyway, the fact that other browsers were not supported was not considered to have strongly affected Korean users’ online experience (Baekdal, 2007). The Openweb group protested the judgment and continued to campaign but they didn’t try legal approaches again.

### 7.4 Microsoft turns against Active-X

Around this time, aside from its browser compatibility problems, Active-X controls also started to be flagged as a global Internet security problem. The controls became a widespread channel for viruses and malware because Microsoft initially designed Active-X to run by default as opposed to requiring user permission (Ellison and Schneier, 2000). Malicious programs from websites therefore had the ability to automatically install their malware on PCs when a user simply visited a website using Internet Explorer version 6 or 7. When these security problems became widespread, critics of Korea’s system stressed that public-key certificates were also not very secure. One risk with this system was that keys were often stored on unprotected memory devices like hard disks or USBs, and that they could be transferred simply by using a copy and paste command from the NPKI folder to any other storage device. Another problem was that the security given by the Active-X plug-in was only temporarily available during that online session and it was effectively useless if the
user's computer was compromised earlier (Burkholder, 2002). Usability was yet another complication. In a study by Huh Jun-ho of Oxford University, an Internet user logging on to the webpages of three Korean banks would have to install a minimum of nine Active-X plug-ins to proceed (Kim et al., 2011). Furthermore, to use more than one computer, a user would need to copy the private key each time and re-install all the plug-ins again and again.

Microsoft decided to address some of their browser security problems when they released their upgraded Operating System, Vista, in 2007. They re-designed Active-X controls to increase safety by requesting a user action before a control can run. This meant that the launch of Windows Vista in 2007 resulted in major disruption for Korea because the Active-X programs required by banks and online retail sites no longer functioned correctly after the upgrade. This prompted three South Korean Governmental ministries; the Ministry of Information and Communication, the Ministry of Government Administration and Home Affairs, and the Financial Supervisory Service to warn domestic users that a Vista upgrade would make it impossible for them to make any secure transactions online (Farrell, 2007). They also lobbied Microsoft to delay the launch of the Vista OS but their request was rejected. Microsoft announced ‘We’ve been testing Vista with banks and other service providers since September, but we encountered more delays than we expected. We plan to release the product as scheduled’. The result was that many Korean companies and users opted not to upgrade and plenty of them still use Windows XP even today.

Other large companies wishing to attract Korean users have been forced to try and accommodate the national reliance on Active-X controls. On November 26th, 2008, Google Korea announced that their Chrome Web browser would support Active-X only for the Korean market in order to allow for the use of digital certificate systems (Kang, 2007). This came at a time when Google held a 2% search engine share and a negligible slice of the browser market, so they were trying to find a way to make themselves attractive to Korean consumers.

The fact that almost every Korean website used the same security method meant that hackers had a unified point of attack. According to a study carried out at Cambridge
University, close to 90% of Korean data breaches from 2008 to 2009 took place using only one attack method (Kang et al., 2010). One example of this occurred in summer 2009, when a large Internet attack disabled over 80,000 Korean computers. This attack was blamed on Active-X providing a single channel for cyber criminals to spread malware to carry out Distributed Denial of Service (DDoS) attacks. Korea had issued almost 22 million public-key certificates by the end of 2009 (KISA, 2009). From January to August 2009, Korea reported 14 Internet banking security breaches leading the loss of KRW0.23 billion, while the US reported losses of approximately KRW135.2 billion in the 3rd quarter of 2009 alone. The UK had the losses of approximately KRW66.4 billion in the first half of 2009. However, some specialists asserted this could be down to the buffer provided by the Korean language as opposed to the protection offered by the nation's online security standards (Korea Times, 2010).

It was around this time that mobile devices became widespread in South Korea. Users expected to be able to access Korean websites and carry out transactions using these devices. However, the predominant browsers on these devices did not support Active-X. In February 2010, The Korean Financial Supervisory Service (FSS) introduced new standards for card transactions on smart devices (Kim, 2010). The standards stipulated that inputted card data must be protected using antivirus, anti-malware programs and encryption. Furthermore, the use of accredited certificates when making payments of KRW300,000 (approximately US$260) became mandatory. This caused many problems for online retailers that were targeting smartphone users. For example, the changes meant that the ‘Alladin’ and ‘Yes24’ Internet media stores had to stop using their new card payment system that confirmed user details via SMS messages for iPhone customers. Also, Samsung Electronics had an e-book reader for sale that allowed users to download e-book content using a wireless Internet connection but the new regulations meant that the service could not be used. As their e-book reader did not have a fully functional web browser, it was not possible for them to get an accredited certificate for their device.

When these guidelines affected the business of high profile Korean companies, a strong lobby movement began. This resulted in a major change in legislation when in mid-2010, the Government opted to officially end mandatory usage of Active-X by
introducing a procedure for e-commerce organisations to apply for exceptions. The Korea Communication Commission (KCC) announced they would permit alternative verification methods other than public-key certificates to protect encrypted transactions. As of 2014, Korea’s regulators have given approval to few exceptions so the Active-X system is still used by the vast majority of the nation’s banks and retailers.

7.5 Looking beyond Microsoft Windows

In 2010, Wooribank began to expand its online banking service beyond Internet Explorer on computers when they began to support the Firefox, Chrome, Safari and Opera browsers. However, Wooribank’s Mac OS customers still needed to install public-key certificates and keyboard encryption programs on their devices to access their accounts online (KISA, 2011).

In 2011, many new computers by Samsung and LG in Korea were still on sale with Microsoft’s Internet Explorer 6 and Windows XP as the default option. In 2011, the Korea Communications Commission and the nation’s big Internet portals, Naver and Daum, began to encourage South Korean Web developers to stop using Active-X encryption and diversify the browsers they develop their sites for. In Oct 2011, the market share of Internet Explorer fell below 90% in the Korea as the campaign took hold (Kim, 2011). Meanwhile, Google Chrome tripled its share within a year to 7.27% of the market, partially attributable to its association with the successful Android Mobile Device Operating System. The figures in Korea are way out of sync with the global picture where Internet Explorer dropped to a 39.35% share as of 2013, nearly halving from 68.91% in August 2008.

A report by the Korea Communications Commission (KCC) in 2012 gave an updated view of Active-X use in Korea. 168 sites of the Korea’s 200 major Internet sites, 100 of them private and the other public, used Active X for payment settlements and security at that time. Within the 100 public Internet sites investigated, 82 of them were using an average of 3.7 Active-X applications, while 89 out of 100 private sites used an average of 3.9. On Governmental sites, the Financial Supervisory Service was
using seven, followed by Korea Financial Telecommunications & Clearings Institute and Government Employees Pension Service with six each (Yoon, 2012).

In late 2012, the Active-X situation in Korea even managed to become part of a Presidential Election Campaign. Ahn Cheol-Soo, the founder and major shareholder of AhnLab, the largest of the three big online security companies that offered Active-X solutions in Korea, announced his intention to run as an independent candidate for the National Presidential Elections. He stepped down from his post as Dean of the Graduate School of Convergence Science and Technology at Seoul National University in order to run his campaign. He announced that if he was elected, he would change the Governmental regulations that had been the cause of the country’s dependence on Active-X and encourage the use of International Standards (Ramstad, 2012). This was seen by many as a sign that the attitude towards local web design approaches had finally changed in Korea, and that Ahn was trying to get votes by showing he was on board with the new direction.

7.6 Conclusion

This case study illustrates a number of important characteristics that are prevalent in Korean business. Initially, it showed the Korean willingness to go it alone because they tried to establish a new online transaction security standard instead of waiting for the U.S to make one available. This showed considerable self-belief, as the country’s aim was to create a rival standard, and then try to export it for use globally as an alternative. As is common in Korean business, the Government was the driving force behind this move and they put new laws in place to support the initiative.

Then, legislation was created to ensure the Government had to approve any company who sought to create the software needed to support this new encryption system. This had a twofold effect. The first was that it ensured the Korean Government had a certain amount of quality control over the services offered. The second was that it created a barrier to any other company intending to elbow their way into the business area. Three companies then managed to gain approval and build successful and profitable business in this new niche.
When Netscape left the browser business leaving Internet Explorer as the only available browser that could support the plugins needed, it created a monopoly for Microsoft. At a quick glance, it may have seemed to observers that the Korean Government had created a technical trade barrier that benefitted a large MNC. However, behind the scenes, the Korean companies providing the security software needed for Internet Explorer were also benefitting, and were thus protected from competition.

This barrier was contested in court by a group of Korean academics and Netizens using the argument that it was in breach of laws restricting the use of technical trade barriers. They based their opposition on the fact that the Mozilla Firefox browser was unusable with many Korean websites because it could not support the Active-X plugin needed. The court ruled against them explaining that as Firefox and other minority browsers had such a small market share, the barrier did not affect Korean users much. This showed that the Korean Government were not interested in removing or resolving this trade restriction at the time.

Then, another complication emerged when Active-X controls were identified as a security problem. They provided a channel to bypass user confirmation and install things without consent by malware developers. This led to Microsoft seeking ways to reduce their own reliance on Active-X and trying to boost the security of their operating systems. This was problematic for the Korean encryption standards, as the added security included with Microsoft’s upgraded operating system rendered it unusable until it could be adapted.

One big international company even tried to accommodate a major rival’s technology in order to get around the barrier. Google took the very unusual step of modifying their Chrome Browser to use Active-X for the Korean market only. This shows how much of a hurdle the system was because this is not a strategy that Google would have willingly taken if they did not have to. The situation got even more complicated when devices started to converge. Smartphones, tablets and e-book readers all had new types of browsers and none of them were compatible with the Korean transaction security standards. The Korean Government moved to try and create new legislation.
to support transactions on these devices but it was a difficult process. However, as the use of these convergent devices grew exponentially, concessions had to be made to allow for their use.

As can be seen in Section 7.5 of this Chapter, the online transaction security ecosystem is now changing but the use of Active-X and Internet Explorer is still extremely prevalent. The founder of one of the main companies that benefitted from the situation even moved into politics and worked his way up until he became a Presidential candidate. As many of his supporters were young University Students and 20-something professionals, he had to take on the topic of Active-X usage and his company’s involvement directly. The younger generation was those who were most likely to use the convergent devices that the security system had problems with, so he promised publicly to try and address the system and open up the market for all browsers and systems.

In conclusion, this case study illustrates a lot of the characteristics of the Korean ICT ecosystem. It displays heavy regulation and the relationship between Korean Government and business. The restrictions created a market where the Korean companies and Microsoft were the only ones who could take advantage of the situation, and thus they had a profitable and protected niche market. The core services of these protected Korean companies could only have been confined to their own nation initially, but the insulated environment allowed the companies to diversify and now some of their offshoot areas have managed to expand beyond Korea.

This example also shows some of the negative aspects of Korea’s social system. It shows how the Korean Government’s attempts to micromanage the online security system resulted in a situation where consumers were effectively locked into a monopoly that restricted them from being able to keep up to date with technology changes. The spread of Active-X based web design also clearly displays the Neo-Confucian characteristic of seeking conformity and following a standard accepted approach. The irony here is that Korea ended up isolated from international standards by using an approach that entirely depended upon a single foreign Internet browser. This is example of a situation where a technical barrier to trade was raised through Governmental regulation. This allowed the Korean transaction security companies to
safely develop their businesses while only competing for customers against each other. In addition, the owner of one of the main companies moved into politics creating strong lobbying potential for the agenda of the group.
Chapter 8

Telecoms and Mobile Devices in Korea
Chapter 8: Telecoms and Mobile Devices in Korea

8.1 Introduction

Telecoms and mobile devices are now one of the key ICT business areas in South Korea. As with other industries in the country, it is dominated by the giant family-run Chaebol companies. The major players in this arena are Samsung, SK, LG and KT. This Chapter begins by showing how Korea was drastically behind the leading countries when it came to telecom infrastructure, but a restructure of Government departments in the 1980s, followed by strong support and financing for improvement led to Korea catching up very quickly.

Next, the study moves on to the early days of commercial mobile telephony and shows how South Korea opted to use the CDMA system instead of the GSM even though GSM was showing signs of becoming a global standard. This created a connection between the American company Qualcomm and the Korean handset makers but also shut out the vast majority of international handset companies. Again, the heavy involvement of the Korean Government was apparent as they helped to create the system and legislated for its mandatory use.

In order to show how the telecommunications business in Korea evolved, a section is included following the entry and exit of various companies in the mobile phone market. All of the service providers were domestic companies with strong Government connections, thus creating a tight-knit business area. Moves were made to deregulate the market but it was still kept under tight supervision from the Government. It was in this environment that Samsung and LG started to emerge as dominant players.

This Chapter also outlines how the WIPI system was created. WIPI was another mobile telephone standard that was used within Korea only, and again its use was compulsory for any company planning to sell handsets in the country. This Chapter will show how this standard along with a Governmental restriction on the use of
mapping technology formed another significant technical barrier to trade for international handset manufacturers.

This Chapter also looks at the effect the arrival of Smartphones had for Korean handset makers. In most countries, these phones dramatically entered the market and immediately grabbed a substantial market share, but they were affectively locked out of South Korea because of the WIPI and mapping restrictions. However, this did force Samsung and LG to make some big decisions about which operating systems they opted to use on their phones.

Next, this Chapter shows how pressure groups and criticism managed to force the Korean Government to remove their WIPI requirement and create exceptions to a location-based services law. This finally allowed international Smartphone makers into the Korean market and their success will be analysed as part of this study. Other legislation on gaming by the Government that affected the mobile device business area will also be looked at as a possible example of impractical lawmaking that they were forced to back down on.

The Chapter ends by looking at recent developments both globally and in Korea in the Smartphone area. This shows how Samsung reacted to the threat of Smartphones and managed to regain and even develop their footing in the mobile device area. This is another example of a story that is not yet finished because the competition is constantly swinging back and forth as new products are released.
8.2 Infrastructural Development under a Government monopoly

In post-war South Korea, responsibility for telecommunications was given to the Government’s Ministry of Communications (Antonelli, 1991). However, in 1981 a series of decisions were made to restructure the industry and drive progress. This began with the creation of a new law on the establishment of the Korea Telecommunications Authority (KTA) paving the way for a 100% Government-owned monopoly carrier to open for business. The KTA was launched on the first of January 1982 with support from a Governmental ‘Information Welfare Society’ project that aimed to provide universal telecommunications services to both rural and urban areas. This started out with the construction of Korea’s first digitally-switched network using a fiber optic backbone, When it was completed in June 1987, it was possible to dial direct nationally without operator assistance for the first time. Other important moves made by the Korean Government to support the new market structure were The Framework Act on Telecommunications and the Telecommunications Act in 1983. These laws decreed that all telecommunication services could only be provided by carriers approved by the Ministry of Communications (Amsden, 1989).

As communications were all Government-owned in South Korea, the creation of Mobile Phone Services was managed in the same way. In 1984, a new organisation called Korea Mobile Telecom (KMT) was formed as an offshoot of the KTA. The aim of the KMT was to provide a 1G (first generation) analogue cellular service using Advanced Mobile Phone Service (AMPS) technology in Seoul and parts of the Gyeonggi-do urban area surrounding the city (Choi, 1990). During these early days of mobile telephony in Korea, most of the network equipment was brought over from AT&T and Motorola from the U.S. In 1987, the Government took its first step away from a monopoly by announcing a plan to privatise the KTA and invite private companies to offer database and data processing solutions (Kim, 1993). This was followed by a loosening of regulations for public networks and leased lines. This allowed the construction of Korea’s first private networks in 1987 and 1988.
8.3 The decision to use CDMA

By 1988, the KTA had achieved their first goal of providing services to the area in and around Seoul so they moved on to working on a nationwide mobile communication network. They achieved full coverage in 1991 and one driver during this period was that the Korean Government earmarked mobile telecommunication as one of the country’s pivotal strategic industries to drive exports (Kim, 1992). One big decision taken at this time was on which technology emerging mobile providers should use. A very influential body in the decision-making process was the Government-owned telecommunications research institute known as the Electronics and Telecommunications Research Institute (ETRI). The Korean Government initially set up the ETRI in 1976 and they created a digital switching system called TDX, which was licensed to all the major domestic telecommunications equipment manufacturers (Lee, 1991). In 1989, the ETRI started to work on mobile networks using TDX along with a technology known as Code Division Multiple Access (CDMA) that was first used with phones in the USSR during the 1950s (Skylar, 2001). In order to commercialise CDMA, the ERTI worked with an American Company called Qualcomm who had recently made a number of technology breakthroughs using CDMA. Qualcomm owned the core technologies but they were searching for partners to test and implement their new systems (Lee and Gomez, 1992).

The first phase of the CDMA project in Korea was launched in 1989, supervised by the ETRI with project management provided by the KTA. They worked with 63 researchers and a budget of 4.5 billion Won. From 1990 to 1995, four more companies joined the initiative as Designated Manufacturers (DMs); Samsung Electronics, LG IC (who later became LG Electronics), Hyundai Electronics and Maxon (Chang, 2003). The first three were from South Korea and the last was from Australia.

With Korea’s major companies and the Government behind the CDMA project, the South Korean Government decided to approve CDMA as the only permitted mobile network standard in the Korean domestic market during 1993 (Song, 1999). However, the decision to exclusively use CDMA placed Korea at odds with the majority of
Global Phone networks. Internationally, the emerging dominant technology standard was the Global System for Mobile Communications (GSM). These were standards developed by the European Telecommunications Standards Institute (ETSI) to establish protocols for the Second Generation (2G) digital cellular networks utilised by mobile devices (Mouly and Pautet, 2002).

In contrast to Korea, thirteen European countries worked together and agreed to adopt GSM as their mandatory standard in 1987 (Funk, 2001). Mobile phones could not roam between CDMA and GSM networks so that meant that phones from outside Korea could not be used in Korea and Korean-made phones could not be used in Europe. One effect that this had is that it kept Nokia and Ericsson, who went on to become the globally dominant handset leaders in subsequent years, out of the Korean market and protected domestic handset manufacturers (Haug, 2002). In contrast, the USA took a different approach and allowed the use of both GSM and CDMA at the same time by different carriers, creating competing network technologies that still exist today (Funk, 2002). For example as of 2013, five of the biggest seven mobile networks in the United States use CDMA: Verizon Wireless, Sprint, MetroPCS, Cricket, and U.S. Cellular, accounting for almost 60% of the market. Conversely, only AT&T and T-Mobile use GSM representing approximately 40% of the user base (GSM Association, 2013). With its dominance in Europe and a significant presence in the USA, GSM became the closest thing to a global standard for mobile communications at the time, reaching over 80% of the market share at its peak (Funk & Methe, 2001).
8.4 The emergence of private companies

In 1991, the Korean Government continued taking steps towards reducing the monopoly in their domestic market and the KMT (Korea Mobile Telecom) began a privatisation process. By this time, the KMT had rebranded their company as the Hankuk Idong Tongshin Corporation. It was at this stage that one of Korea’s giant Chaebol companies started to show an interest in Telecoms. The Sunkyong Group (now known as SK) decided to branch off from their core business of petrochemical and energy processing into communications, and invest in the privatisation of the Hankuk Idong Tongshin Corporation (KMT). By June 1994, the Sunkyong Group had become the largest shareholder in the former KMT (Kim et al., 2010).

The Sunkyong group also began to be strongly involved in the CDMA development process. They organised a special taskforce to carry out various field tests that provided essential feedback to the commercialisation process. This was the beginning of a close relationship between Samsung Electronics and Sunkyong that eventually resulted in Samsung offering handset models exclusively to Sunkyong (SK). Samsung took their first plunge into the international handset market in 1996, when they sold their PCS cellphones through Sprint, a U.S.-based CDMA network. Sprint agreed a US$600 million deal with Samsung, whereby Samsung would offer their PCS handsets to Sprint for three years under the co-branded name Sprint-Samsung (Lee & Lee, 2002). In the following years, Samsung expanded into Hong Kong in 1997, and then Brazil in 1998. However, the Korean Government wanted to introduce competition as well as privatisation into the market. Therefore, in 1994, they attempted to break the monopoly by allowing a second mobile service provider into the market. Shinsegii were awarded the license to operate and they began to prepare to enter the market. Then, in January 1996 the Sunkyong Group launched the world’s first 2G digital CDMA service, quickly followed by Shinsegii Telecom using the same technology in April 1996. Just over six months later, they had signed up 100,000 subscribers and within a year the figures exceeded 500,000 (Yun et. al., 2002).

In June 1996, the Korean Government moved to further deregulate the market by selecting three more approved PCS (Personal Communication Service) providers. Korea Telecom Freetel (a subsidiary of KT), LG Telecom and Hansol PCS were
chosen, and they began operating in October 1997 (Kushida and Oh, 2006). However, this was just over one month before South Korea required IMF intervention to save its ailing economy. One of the IMF’s demands was that major public service organisations must be privatised, so a movement began to restructure KT. Despite the demands from the IMF, the Korean Government continued to be heavily involved in the mobile telephone business. The Government established a research fund for CDMA technologies using a license fee gathered from the five main mobile network operators calculated by their market share (Lyytinen & King, 2002). The Institute of Information Technology Assessment (IITA) controlled this fund. The Government ensured that there was collaboration between SKT, ETRI, KT and the handset manufacturers. The official aim of this was so any delays between technology development and commercialisation could be minimised but of course it also allowed the Government to steer the direction of technology development.

It was also around this time that the rise of Samsung and LG began to be apparent in the Korean mobile handset market. In the final days of 1G analogue phones in 1995, the U.S-based Motorola company was the market leader with a 52% share in the Korean handset business. As explained in Section 8.4, the Sunkyong Group had a close relationship with Samsung and LG telecom decided to promote their own LG handsets in the 2G rollout. This meant that by 1999, domestic Korean manufacturers had taken over in excess of 90% of the market share (Steinbock, 2003). Moreover in 1999, Samsung also moved into first place in the global CDMA market where they accounted for more than 50% of the market share. However, the global CDMA market was much smaller than the GSM one, which added up to 70% of the total global mobile communication market (Rapporteur, 2002).

Another important change at this time was the creation of the 1997 revised Telecommunications Business Act that allowed companies to offer services without installing line facilities, and also lowered regulation barriers for Internet access service providers (MIC, 1999). Previously, a company had to undergo a long approval process to get a license but the new revisions simplified the procedure with a more efficient registration system to offer ‘specific communications business’ services. This resulted in an explosion in the market with 82 new Internet service providers (ISPs)
and 19 million additional Internet customers before the end of 2000 (Forge and Bohlin, 2008). Cable TV networks quickly leveraged their existing customer bases and launched high-speed ADSL services with flat-rate price plans.

In parallel with the above changes, the Korean mobile operators began to introduce data service functions in late 1998 using 14.4kbps connections and then upgrading to 64kbps in 1999. This was when short messaging services (SMS) became the most in-demand service, and the three main players agreed to make the system interoperable across their networks (MIC, 2001). For 2G, Wireless Application Protocol (WAP) and iMode were the only two available standards. With these new services, there was a race to provide the best possible network. In 2000, this led to the launch of Korea’s first broadband mobile service (2.5G) by SK Telecom using CDMA 2000 technology (Han, 2007). There was an agreement between the Korean network operators that when a company launched a new service, they would have exclusive rights to it for six months and then others could use it. This also applied to this new broadband service and KTF LG Telecom launched their 2.5G services right on cue during May 2001. Shinsegii was then acquired by SK Telecom in January 2001 and Hansol PCS was merged into KTF in May 2001 (Park & Lee, 2002).

8.5 Falling behind on 3G and the implementation of the WIPI Standard

As high volume data transmission traffic increased, the bandwidth of 2G mobile phone networks began to struggle with multimedia broadband Internet services so 3G started to emerge as a solution. The International Telecommunication Union (ITU) sought to establish a global standard for 3G wireless communications known as International Mobile Telecommunication-2000 (IMT-2000). Both wCDMA and CDMA2000 were officially included in the IMT-2000 standards (Chandler, 2003).

The Korean Government adopted a multi-standard approach for their next-generation 3G regulations. There were two types of standard for 3G services available at the time. CDMA2000 was an upgrade to QualComm’s 2G CDMA technology. wCDMA (wideband CDMA) was a European standard that was not dependent on GPS satellites owned by the United States Government (Chen, 2007). The Korean Government gave
wCDMA licenses to SKT and KT FreeTel (KTF) in July 2000, and then in August 2001, a CDMA2000 license was also approved for LG Telecom (LGT). As wCDMA is not compatible with either GSM or CDMA2000, handset manufacturers predicted that a large new market would quickly emerge for both network and terminal equipment. In October 2001, the Japanese company DoCoMo launched the world’s first 3G service using FOMA technology, which is a variant of wCDMA (Kushida, 2008).

Korea was not far behind, and in May 2002 KTF launched the world’s first CDMA 2000 service. Again, using the six-month rule mentioned earlier, SK Telecom followed using the same system in November 2002. Both companies were awarded licenses for wCDMA but they postponed deployment due to what they deemed to be an uncertain business environment. For 3G, the Korean Government decided on a multiple-standard policy, allowing both wCDMA and CDMA2000 1x (Kim, 2003). The Government awarded licenses for wCDMA to SKT and KTF, and for CDMA 2000 to LG Telecom. By June 2003, SKT had 800,000 new subscribers, while KTF had about 470,000. Moreover, at that time around 40% of the new phones sold included cameras. Because of this and other new features, SKT received 9% of their revenue from multimedia data services during the first quarter of 2003. Other examples of successful multimedia applications included Multimedia Messaging Services (MMS), ringtone downloads, character animations, media downloads and location-dependent services (Kim, 2003).

Two significant organisations whose influence was reduced at this time were Qualcomm and the ETRI. Qualcomm continued to be an important company in the CDMA2000 area, but some of their competitors started manufacturing comparable chipsets, including Samsung and Nokia, which affected their business. In addition, Qualcomm’s strategic development path diverged from some of their Korea partners when it came to CDMA2000 (Mock, 2005). In parallel, the ETRI, who earlier were a leading group in the development and commercialisation of 2G CDMA, decreased their profile significantly at this time. They acted in a supporting position only in the development of 3G. Meanwhile, KT invested KRW10.5 billion in a number of 3G development initiatives (Jho, 2007). Then, KT was awarded a 3G business license from the Government, and they started up a service called KT ICOM. However, KT
also failed to establish a central role during this time. The non-Korean manufacturers (Ericsson, Motorola and Nokia), elected to not take part in the development of 2G CDMA services in Korea, and instead focused on IMT2000 projects.

As interactive multimedia content grew in Korea, a problem began to emerge. When service and content providers started to sell increasingly sophisticated data services, the three main operators in the Korean market each developed their own platforms to run Internet applications on mobile devices. The technology used to make these applications diverged. SK Telecom used their own VM (virtual machine), KTF chose Qualcomm's Brew and LG Telecom went for Java. Therefore, a content provider would have had to develop and test applications for all three platforms to serve all mobile customers in the market (WIPI Association, 2005). To address the problem, the Korea Wireless Internet Standardization Forum (KWISF) created a Mobile Platform Special Subcommittee (Falch, 2007). The three main operators, the Telecommunications Technology Association (TTA) and the ETRI worked together to make a new standard for mobile Internet applications. It was called the Wireless Internet Platform for Interoperability (WIPI).

WIPI was a middleware platform developed in Korea that officially aimed to allow mobile devices, irrespective of manufacturer or carrier, to run applications. Most of the code behind WIPI was built on Java, but it also had the capability to download and execute compiled binary applications. Therefore, WIPI was able to run both Java (MIDP) and Brew based applications. The South Korean Government then created a mandatory rule that all mobile devices sold through the nation had to use the WIPI platform. As WIPI was developed in Korea only, this new rule essentially blocked certain phones from being sold in the Korean market (Ramstad and Woo, 2009).

As a result of the introduction of WIPI and other mandatory regulations, the telecommunication area became a bone of contention for trade between the U.S and Korea (Suh and Chen, 2007). For example, a dispute began in 2004 over the Korean Ministry of Information and Communication’s (MoIC) plan to set a mandatory standard, in the 2.3 gigahertz (GHz) bandwidth spectrum, for wireless Internet, i.e Wi-Fi. U.S. companies and officials made accusations that the Korean Government
was making decisions under the influence of the ETRI, and the standards were being developed to deliberately block foreign importers in order to help Samsung and LG (Mahlich and Werner, 2007). These moves led the U.S Trade Representative (USTR) organisation to label South Korea as a ‘key country of concern’ in its 2004 report, which assessed U.S. trading partners’ compliance with international trade agreements (Jho, 2007). For almost two years, the USTR argued with the South Korean Government about the MoIC’s requirement to stipulate that all mobile devices must use WIPI only to transfer data over the Internet (Lee and Lee, 2004).

8.6 The Smartphone Revolution

In 2002, a revolution was on the horizon for mobile phones and their operating systems. This was the emergence of smartphones. A smartphone is a convergent mobile device with more advanced computing capability, features and connectivity than previous phones (Eli, 2009). The earliest smartphones merged the functionality of personal digital assistants (PDAs) and mobile phones. Then, more advanced smartphones added features from portable media players, digital cameras and GPS navigation devices to create multi-use phones (Moon, 2009).

One of the first commercially successful smartphones was the Blackberry from a Canadian company called Research in Motion (RIM). When released in 2003, the Blackberry phone signaled a technology convergence by supporting push email notifications, mobile calls, text messages, Internet browsing, fax and Wi-Fi information services. BlackBerry initially got a strong foothold in the market by focusing on email functions and targeting business customers (Cowhey and Aronson, 2009). The first BlackBerry phone used a monochrome screen with a built-in QWERTY keyboard that was designed for ‘thumbing’, i.e needing just the thumbs to type.

This convergence also opened up a massive opportunity for Apple, the U.S technology company. They decided to leverage their hugely successful Personal Media Player (PMP), the iPod, and their experience in User Interface Design from their personal computer products in order to make a smartphone. Development on the
iPhone began in 2004 and the iPhone was officially unveiled on January 9th, 2007 at the Macworld 2007 convention in San Francisco (Apple, 2013). The two initial iPhone models went on sale in the U.S. in June 2007, in the UK, France, and Germany in November 2007, and in Ireland and Austria during the spring of 2008. Samsung provided flash memory and components for both the iPod and iPhone so they also stood to benefit somewhat from their new competitors (Frommer, 2008).

The iPhone had a profound effect on how people perceived smartphones because Apple marketed the idea of using these devices for leisure, general communication and business through a touchscreen input. The iPhone was a huge hit and just over a year later, it had already caught up on the Blackberry sales figures internationally. However, in Korea neither the Blackberry nor the iPhone were released at the time because they did not develop products that complied with Korea’s WIPI compatibility legislation.

Even though they were protected domestically due to legislation barriers, the emergence of smartphones posed a very big challenge to both LG and Samsung internationally. By 2007, Samsung had become the world’s leading CDMA phone manufacturer and sat in second place in the overall global phone market behind Nokia. LG Electronics had also expanded their business quickly. Together, Korean companies held more than 60% of the worldwide CDMA phone market in 2007. Between 2000-2007 Samsung's market share almost doubled (from 10%) in the second quarter of 2002, while LG had a larger share than Motorola (5%) and Sony Ericsson (5%) combined. In 2007 / 08 Nokia were the global handset leader with over 40% market share, but Samsung were second at over 15% and LG were not far behind at around 10% (Virki, 2011). Samsung’s business strategy was to sell their phones based on their hardware features such as the megapixel ability of their cameras, along with handset size and weight. However, they now faced smartphones marketed on functionality, with an emphasis on user interactivity design and applications. Many Samsung phones at the time included operating systems that were not even branded. This shift was further illustrated when Apple unveiled their App Store to sell native and third party Apps on their devices in July 2008 (Apple, 2013).
8.7 The decision to use Android and the decommissioning of WIPI

One reaction to the emergence of the iPhone and Blackberry phone was the creation of the Open Handset Alliance in November 2007 (Kim, 2008). This group of technology businesses included Google, HTC, Sony, Samsung, Sprint Nextel, T-Mobile, Qualcomm and Texas Instruments. They announced that they planned to work together to develop open standards for mobile devices. As part of this initiative, Google’s unveiled the Android Mobile Operating System. Android was initially a separate company partly financed by Google, but Google then bought the company outright in 2005 (Google, 2013). This new mobile OS was built on open source code, meaning that the software could be adapted and used by any device manufacturer, wireless carrier or even hobby programmers.

Within Korea, Samsung and LG continued to enjoy domestic handset dominance with an over 80% market share throughout 2008 (Bicheno, 2013). One side effect of the exclusion of international competitors was that the Korean handset makers charged a premium price for their products within their home country. However, criticism from consumers grew, as many people wanted to get access to the kind of user experience offered by the Blackberry and iPhone systems. This led to a large debate among the commissioners of the Korea Communications Commission (KCC). Essentially, there were two barriers to foreign smartphones in Korea. The first was the mandatory WIPI platform as discussed earlier in Section 8.5. The second was that the integrated mapping functionality of certain smartphones violated a South Korean regulation stipulating the usage of domestic Korean software for location-based services on mobile devices.

Amid the consumer pressure, the KCC opted to retire the WIPI specification. They made the decision in late 2008 and set the expiration date for the rule as April 1st 2009 (Oliver and Jung, 2009). They also created an exemption to the map regulation for the iPhone that allowed Apple to include Google Maps as a standard App as they did on all iPhones at that time. The first mobile provider to announce that they would sell the iPhone in Korea was KT. They had recently merged the KTF and KT brands to try and catch up on SK telecom who then controlled more than 50% of Korea’s wireless customers (Lee, 2010). SK decided to sell HTC, RIM’s Blackberry phones
and Nokia instead of the iPhone (McInnes, 2011). This left the number 3 carrier. LG Telecom, in trouble, because they were still using the CDMA EV-DO standard to provide mobile data services, so they could not accommodate foreign handsets (Churchill, 2011).

Meanwhile by late 2008, Apple had eaten into the global business of both Nokia and Samsung, jumping ahead of the Korean company in global market share for smartphone handsets. The market positions of Nokia, Samsung, Motorola and LG were also being severely threatened and they needed to make major changes to adapt to emerging customer expectations. These companies needed to quickly find a way to compete with Apple’s user interface and their industrial design approach. With their new smartphone model, Samsung decided to focus their engineering work on the physical design of handsets and use Google’s Android operating system as the user interface. They called this phone the Samsung Galaxy (also known as the i7500). It was announced in April 2009 and first went on sale in June 2009 (Rowinski, 2012).

Some other mobile companies, including Motorola, HTC, Sony Ericsson and LG, also opted to use start using Android with some of their models. In contrast, Nokia decided to stick with the Symbian operating system and their sales began to plummet. By the second quarter of 2009, Android held a 2.8% share of the global smartphone market and was accelerating quickly (Canalys, 2009). However, Apple still forged ahead globally in 2009, controlling over 14% of this emerging market compared with 3.3% for Samsung and an even smaller share for LG. One significant mistake during this period was LG’s decision to only use Android in their low-medium end phones. Their sales figures went into a sharp decline and the LG electronics CEO resigned suddenly in Oct 2010 explaining that he had to take responsibility for the company’s recent poor management and performance in the mobile area. He was replaced by Koo bon-joon, a member of LG’s founding family (Miller, 2010).

In 2010, more convergent products started to appear. These products were called tablets and they combined features of mobile phones and laptop computers in flat touchscreen devices. Again, Apple used its experience with laptops, phones and the App ecosystem to enter the market in this new area with the release of the iPad in April 2010. The iPad was available as both a Wi-Fi only device and a mobile device
using existing networks (Apple, 2013). This product was another success for Apple and it signaled a global shift towards larger-screen mobile devices. Samsung also opted for a larger screen size in the mobile phone area when they released a 4-inch Galaxy S Phone in June 2010. This decision helped the Galaxy S to become the flagship model for Android. By the fourth quarter of 2010 Android Smartphones had taken 33% of the market, becoming the most widely used smartphone operating system with the Galaxy S and later the SII at the forefront. One huge breakthrough was that all three of the major carriers in China decided to sell the Samsung Galaxy S in 2010 opening up the largest consumer market in the world (Hyers, 2013).

2010 was also the year that saw mobile phone penetration rates reach 100% in South Korea for the first time, exceeding the total human population of the country. A survey taken at this time estimated that about one million, or 14.3% of the nation’s teenage population had symptoms of Internet addiction. This led to the Korean Government revising the Juvenile Protection Act in 2010 (Kim, 2010). The new regulations sought to prevent young gamers from playing online games anywhere from midnight until 6 a.m. They hoped to enforce this using the gaming age classification approval step that every new game needed to get before legally being sold in the country.

This new requirement quickly ran into trouble. Its wording made it inconsistent. For example, Sony’s Playstation Network was not affected by the regulation, but Microsoft’s XBox was, because for the Xbox, subscriptions need to be purchased for multiplayer games. Some of the most popular online games in Korea including Starcraft, Diablo 2 and Warcraft 3 received exemptions from the ruling after Nattle.net claimed the entire Internet would need to be blocked every night throughout Korea to adhere to the new law. Korea’s lawmakers also mandated that mobile game developers send in their games for a review of their age suitability, which prompted Apple and Google to entirely cut access to their gaming category for Korean customers. This led to an amendment in the law to give mobile games a two-year grace period from the legal categorisation (Green, 2010).

Although the switch over to Google’s Android system allowed Samsung phones to compete and eventually surpass Apple’s phones in sales, the move was seen as an
example of the weakness of Korea’s user interface design ability when competing internationally. To address this problem and decrease their reliance on Google, Samsung began to develop their own operating system called Bada (literally meaning sea in Korean) in 2010. Samsung launched a range of Samsung Wave phones using the new mobile OS but the phones were not a success (Byford, 2013). Recently they cancelled the development of Bada and merged it into the new Tizen operating system development project that Samsung and Intel are working together on. The group working on the Tizen OS are hoping it will become the system of choice for Smart TVs, a new convergence of TVs, PC and mobile technologies (Kim and Cheng, 2013).

8.8 Recent Developments in the Mobile Area

2011 can be seen as the year when Samsung really started to dominate the global smartphone scene. Nokia had been the market leader for 15 years and many analysts expected that Apple’s iPhone would be the product that would topple Nokia from its position. However, sales of the Galaxy Series with its Android OS accelerated very quickly to jump into the lead. This led Apple to begin a massive patent lawsuit campaign against Motorola Mobility and Samsung (and some other Android device manufacturers) to try and block sales of the devices. Samsung reacted by countersuing Apple also on patents. By July 2012, both companies were embroiled in over 50 legal battles all over the world, with billions of dollars in compensation sought by each side (Zeman, 2013). In one of the lawsuits in Seoul, the Korean judges decided that both sides infringed each other patents and decided to block sales of both company’s mid-range products.

South Korea’s penetration rate of smartphones ranked number one in the world for the first time in 2012. According to the U.S. market research Strategy Analytics group, South Korea’s smartphone penetration rate stood at 68% in 2012. In a report analysing 88 countries, Korean smartphone users changed their handsets more frequently than in any other nation. For example in 2012, around 67.8% of Korean smartphone users changed their phones (Hyer, 2013). About half of Korean elementary students and about 84% of secondary students owned smartphones as of
July 2013 (South Korea Ministry of Education, 2013). The 4G Long Term Evolution (4G LTE) rollout started on July 1st, 2011 for Korean customers, with SK Telecom and LG U+ competing against each other for domestic network deployment. Then, in January 2012, KT launched its LTE service (Korea Times, 2012). By the third quarter of 2012, Android held a 75% share of the global smartphone market based on a report by the IDC research company. By the second quarter of 2013, Android accounted for 67% of worldwide tablet shipments and 80% for smartphones placing them in a dominant position globally (Hyer, 2013).

8.9 Conclusion

This case study is perhaps the clearest example of how the Korean Government has influenced an industry using legislation mandating the use of certain technology, effectively excluding international businesses from competing against Korean companies. The Chapter began by looking at how the Government made a series of decisions in the early 1980s that allowed the Telecommunications area in Korea to develop, albeit under a monopoly.

A significant decision took place in 1989 when the Korean Government opted to work with the U.S Company Qualcomm to develop a CDMA standard for their domestic market. It is another example of the Korean Government’s willingness to tread their own path instead of waiting to see what becomes a dominant standard. This decision can be considered as being analogous to the SEED encryption decision seen in the Chapter 7. Legislation soon followed that mandated the use of CDMA only for the Korean Domestic market. This protected Korean Handset makers from the threat of GSM phones made in Europe being sold inside the country, and also restricted roaming possibilities between the two regions.

As the CDMA standard progressed, a development relationship between the Korean Government, the handset makers and the network providers was put in place. Therefore, they all had a vested interest in making the system work and commercialising it successfully. This relationship was kept in place even when the Government started to deregulate the industry and allow additional carriers to operate.
As seen earlier in Section 8.3, they asked the five operators to pay a license fee and contribute to CDMA development.

To illustrate the effect that the creation of this ecosystem had, the example of Motorola was included in Section 8.4. In 1995, they had a significant 52% market share in Korea’s domestic handset business, but just four years later, Korea’s own handset manufacturers held a 90% market share. It was a dramatic shift in a very short time that clearly illustrated how the barriers raised by the collaboration agreement made by the Government affected Motorola. The strength of the agreement between handset makers was also shown by the six-month rule used by the Korean companies each time a new technology or service became available.

The creation of the WIPI mobile connectivity standard again provided a significant barrier to international handset manufacturers. The official reason for creating the standard was to allow the Korean carriers to all run the same applications. There is no reason to doubt that this is true, but as a byproduct it created yet another barrier to international handset manufacturers. It was considered a problem by the U.S Government, as they flagged South Korea as a key country of concern when it came to telecommunications trade as seen above in Section 8.5. The implementation of WIPI coincided with the decline of U.S Company Qualcomm’s involvement in the domestic Korean market. It also happened at a time when Samsung’s chips were ready for use with handsets. The other example of a trade barrier that the U.S protested about around then was a Wi-Fi spectrum requirement for laptops, as discussed in Section 8.5.

When Smartphones, specifically the iPhone and the Blackberry, went on sale around the world, it caught a lot of the feature phone handset makers off-guard because both of the new players came from outside the established phone companies group. Their success affected both LG and Samsung internationally, but it had no initial effect inside South Korea as the new products were blocked by WIPI and the domestic mapping requirement. Samsung reacted quickly (within just over a year) by making the decision to ditch their own phone operating system in favour of Google’s Android and try to change their design philosophy to directly compete with Apple. In contrast to Samsung, LG were much slower to react, and it negatively affected their business
very strongly for the next few years. They eventually decided to emulate Samsung’s approach to try and catch up.

Samsung’s decision saw them come back into the market strongly with high-end large-screen smartphones that went on sale at a lower price than their competitors. The biggest losers in the industry, as was seen in Section 8.6, were Nokia and Motorola who did not react effectively at all to the smartphone revolution. One downside of Samsung’s change in strategy was that it set them on a direct collision course with Apple and that resulted in a huge set of Intellectual Property legal battles.

In summary, this Chapter shows how the Korean Government protected and nurtured both Samsung and LG by helping them in the country’s domestic market. This took place via technical trade barriers and also exclusive relationships. The relationships between the companies and Government were very strong because of the spiderweb of family and business connections in Korea shown earlier in the Neo-Confucianism analysis in Chapter 4. In this case study, it can be said that the Government’s strategy paid dividends as Samsung managed to use the opportunities they were given to rise to the very top of the international mobile handset industry.
Chapter 9

Research Findings and Conclusions
Chapter 9: Research Findings and Conclusions

9.1 Introduction

This thesis has explored, analysed and illustrated the trajectory of the ICT business area in South Korea. This Chapter will discuss how the key questions were addressed and what conclusions can be drawn from the answers. Then, to outline the importance of this study, a section on contributions to the field will be discussed. This will be followed by a look at the limitations of the study to provide some self-criticism. Finally, this Chapter includes the new avenues that have been opened up by this research. This will help other academics that want to expand or drill-in to the ideas put forward in this project.

The cross-disciplinary nature of this work means that there are a lot of interconnected threads to be joined up in this Chapter. Chapter 2 on Korean history provided the foundation for everything else that followed. It showed how Korea’s formative International experiences left a long and lasting impression on the country. These experiences resulted in definable national characteristics exhibited by repeated actions and attempts to avoid certain mistakes of the past. Chapter 2 also had a look at the economic transformation of South Korea with a particular emphasis on the role of Government when it came to managing innovation. This showed how the historical experiences introduced in Chapter 2 strongly influenced the choices made by the Korean Government in business development and international relations. It also displayed the role of leadership in the evolution of South Korea’s industries.

In Chapter 3, the focus was Neo-Confucianism and how this philosophy has permeated South Korea deeply, despite losing its official prominence. It helps to explain how all the large Korean businesses interrelate and where international companies fit and do not fit into the spiderweb. This section runs in parallel to Chapter 2 and shows what lies beneath many of the decisions and policies that were pinpointed as being significant. A key area where Neo-Confucianism has a strong influence is in education. The introduction to Confucianism allows for the exploration of how education and qualifications have become so important in Korea.
and how that has been a constituent part of the country’s meteoric rise in the ICT field.

Chapter 4 began with an overview of ICT business in Korea. This showed how the Government nurtured and encouraged the evolution and use of ICT successfully. In combination with the value placed upon education due to Neo-Confucianism, this has propelled Korea right to the top of international rankings in many ICT areas. The ICT evidence presented led on to an explanation of the research methodology employed in this study. The approach taken here involved a study of the roots of certain decision-making mechanisms using path dependent analysis techniques. The use of path dependency in academic research was introduced and building upon that, the use and selection of case studies was discussed. This was introduced by expanding on the theories of John Cantwell, who suggested that a cross-disciplinary analysis of the historical paths taken in East Asian countries is needed to explain the rapid development trajectory taken in the region. This provided the motivation for including a set of three case studies as practical examples, showing some of the decision-making mechanisms used to stimulate growth domestically and internationally.

One of the areas that was heavily influenced by Neo-Confucianism is South Korea’s Internet culture. In Chapter 5, the Netizens of South Korea were analysed to see what drives these online activists. It was shown that Internet movements became significant when a number of factors came together in order to turn all the fractured groups into large powerful social forces. The factors that were pinpointed were a sense of violation of the social justice that is central to Neo-Confucianism, as shown in Chapter 3, along with perceived cultural imperialism from powerful countries, especially the U.S, Japan and China. This linked back again to Korea’s historical international experiences from Chapter 2. Chapter 5 also showed the first glimpses of how the South Korean Government sought to control online activity via legislation to limit certain activities.

Chapter 6 was the first of the Case Studies included in this thesis. It followed the business battle between the Hangul Office Suite and Microsoft Office. This is a practical example of how Korean History, the tight Neo-Confucian Government to Business relationships and Netizen activism within Korea all converged to provide a
major obstacle to Microsoft, when they directly threatened the business area of a homegrown domestic Korean company. Also, as part of the campaign to support the local company, the Korean Government put a rule in place that basically forced all companies needing to file documentation to buy the Korean program in order to operate, effectively protecting the business and shutting out competitors.

Some of the same characteristics can be seen again in Chapter 7. This Chapter traced the use of the SEED online transaction encryption standard and showed how it created a unique Internet ecosystem in Korea. This Chapter again illustrated how the Korean Government was heavily involved in business regulation and how they created a barrier to certain companies while protecting domestic operations. It also showed how at first it created a desirable market situation for Microsoft, but later this turned into a problem for them in the Korean market because of security and obsolescence problems.

Chapter 8 provided an analysis of the Korean Telecommunications Industry with an emphasis on how Samsung took advantage of their domestically protected state and managed to use that as a platform to become the world’s leading handset maker as of 2013. It is a recent example of a successful business that grew out of Korea’s home environment and took on the world.

9.2 Key Questions Addressed

9.2.1 Can South Korea’s rise as an ICT-based economy be attributed to a free-market policy or to a government-controlled, protectionist policy and to what extent can these policies be attributed to events in Korean History?

This thesis provided major ingredients in answering the question in the affirmative by confirming that the Korean economic development path was strongly influenced by Government-controlled protectionist policies. These policies were also directly linked to historical experiences. As seen in Chapter 3, South Korea’s economic rise involved a number of factors but the main three were:
The transfer of industrial knowledge and skills from Japan to Korea during the Colonial Period.

The successful economic policies and leadership of President Park Chung-Hee

A desire to be economically and technologically strong enough to avoid being dominated again by other nations.

The second of these factors is most significant in the context of this study because it involved both business and Governmental steering. This process was enabled by obtaining capital, including soft loans from Japan, as part of the normalisation of relations between the countries. Then, President Park tightly controlled the credit to the fledgling Korean *Chaebol* companies and he used that leverage to send the companies into the business areas he believed would be most beneficial to his Government’s overall strategy. Some examples given in this study of companies that were managed in this way included Hyundai, POSCO and Samsung. These companies were all pushed into certain industries by the Korean Government as part of their five-year economic plans using credit control and state support as both a carrot and a stick. As part of the system, significant trade tariffs and other disincentives were put in place to protect these new businesses from international competitors.

This economic approach was repeated, modified and sustained over the next two decades. It was a hugely successful strategy for South Korea that saw POSCO become one of the largest steel companies in the world while Hyundai became a major shipbuilding, construction and vehicle manufacturing company. Later, Samsung went on to become a large business in the construction, consumer electronics and electronic components areas. In the mid-1980s and 90s, the strategy began to be liberalised somewhat to encourage foreign direct investment, but it certainly was not dismantled.

International companies often struggled to get a foothold in Korea, even if they were successful in most places around the globe. Examples of companies that had trouble in Korea include Walmart and Carrefour’s retail stores, Motorola and Nokia’s mobile phones, Nissan and Toyota’s cars and Nestle’s Milk and Coffee products. These companies have not succeeded in South Korea for various reasons, but they all had
significant problems and the common denominator is that they all ran aground in Korea, when pitted against equivalent local products and services.

Attributing the success of South Korea’s economy to a Government-controlled protectionist approach confirms the conclusions drawn by earlier academics in this area. In the context of this thesis, it does however provide a building block to move on to finding out why this strategy was chosen and how it has evolved in the era of free trade agreements into a more sophisticated business mechanism. To provide practical examples, this mechanism was studied in one industry in Korea as part of this project. The ICT industry provides a good example because it is an area that Korea excels in generally.

When reviewing Korean History, one recurring theme becomes apparent. The country had a number of negative international experiences. China at times protected and passed knowledge and culture to the old Korean kingdoms, but they also had almost constant territorial battles. As China started to unify, the power balance shifted, because China became more powerful and completely overran the Korean peninsula on occasions. Next, Japan started to emerge and the Japanese rulers saw Korean territory as a stepping-stone to getting a foothold on mainland Asia. As shown in Chapter 2 these experiences forced Korea to look inwards and become defensive and suspicious of international exchanges. Between the 17th and 19th centuries, only a handful of foreign travellers even set foot on Korean soil.

Then, at the end of the 19th century, Korea was forced to open up as seen in section 2.3.3. After opening up, control of Korea’s strategically important territory made the country a target for Russia, China and Japan and the Korean people and leaders had no way to repel their comparatively advanced neighbours. When Japan won the power struggle, the Joseon Empire was eventually annexed into the Japanese Empire, only serving to deepen the Korean distrust of the motives of foreign influence in their country. This distrust was then exacerbated when Japan attempted to suppress the Korean language, beliefs and undermine the country’s cultural independence.

Then, Korea was divided between Soviet-controlled North Korea and a reluctant U.S protectorate in the southern half of the country after the Japanese Empire fell. The
fallout was a devastated, flattened country carved in a North-South split. This experience did not redeem the international community in the eyes of most Korean people. In North Korea, a regime emerged that was fiercely militaristic and defensive. They created the *Juche* (self-reliance) and *Songun* (military-first) ideologies. These were pseudo-Soviet philosophies that strongly emphasised the need for independence in the face of perceived foreign aggression. The North Korean leaders also tried to industrialise their country for domestic development, which initially was quite successful, but eventually ran into trouble, due to the decline and eventual disappearance of Soviet Union support.

South Korea took a different approach that gradually took shape in the 1960s. Once the military under President Park Chung-Hee got control of the country, he created an export-led, centrally-controlled, industrialised country that successfully fostered a number of very large manufacturing and construction companies. The basis for this business environment was selling domestically-made products internationally while blocking or placing barriers in the way of international products domestically if they could be made at home.

Another barrier that is insufficiently considered in international business is how to traverse the spiderweb of relationships that Neo-Confucianism has embedded in Korean society. Neo-Confucianism has created a society where education and qualifications are held in the highest value, meaning that most business and political leaders are alumni of the same small group of elite universities. The philosophy also encouraged family-based succession even in business. This restricted social mobility for Korean people but it also created a huge barrier to non-Korean individuals and business in the country as they don’t fit into the system. Therefore, it is unlikely that non-ethnically Korean managers at the top level of organisations will appear domestically in the country any time soon unless it is in a consultancy / figurehead capacity. The same complex network of relationships can also block companies trying to do business in domestic Korean markets, unless they can successfully find a way to fuse both cultures without upsetting the social order.

Therefore, it can be said that both Korea’s exhibited differing forms of suspicion of foreign influence and attempted self-reliance, due to past negative experiences with
international involvement in the Joseon and previous Korean Kingdoms. Building on this idea, it is logical that the barriers to trade in South Korea are as much psychological as they are practical. So, even if the official tariff-based barriers are removed via free trade agreements, it is likely that other barriers will be erected in their place at either local or Governmental levels. Barriers of this type include consumer-activism boycott campaigns, technical barriers to trade and negative media stories. This thesis chose technical barriers to trade in ICT as the example, but the others would be equally valid topics for further investigation.

9.2.2 Can case studies provide examples that show tariff-based trade barriers are sometimes replaced by Technical Barriers to Trade in the ICT Industry to protect domestic businesses in South Korea?

In Chapter 2 of this study, the economic development model followed by South Korea was charted. This included details on how the infant businesses in the country were protected by punitive tariffs on rival imports in the domestic market. In Chapter 1, information was shown that displayed how South Korea dismantled many of their import tariffs as part of FTA agreements with various countries and regions.

However, with the help of case studies, this thesis shows that the Korean Government has dismantled tariff-based trade barriers but erected replacement technical trade barriers instead to protect certain infant businesses. The three case studies are examples of this emerging phenomenon.

The three case studies analysed were from different areas of ICT business. The first area was Office Suite programs in Chapter 6, the second was online transaction security in Chapter 7 and the third was telecommunications in Chapter 8. Each of the three areas involved interactions between Korean home-grown enterprises and large MNCs. These interactions displayed some clear repeated patterns when the international companies posed a threat or an obstacle to the Korean business. One of the common themes in the three case studies was a high level of Governmental legislation. Another is close collusion between political figures and business leaders with some business figures in this study even crossing over to become politicians. An additional feature is an expansionist business approach where the companies try to
sell their products internationally quite aggressively and early. This is to be expected given Korea’s export-led economic history. Yet another common feature is consumer activism through Internet-based campaigns by Netizen groups.

Of the three case studies presented, the Office Suite example had the least Government involvement. When Hangul Word was first launched to domestic customers, they had no competitors offering the same type of program in Korea. This allowed them to get a good market presence quickly. The business environment changed when Microsoft entered the fray with a product that was in direct competition with the Korean product. Then, their attempts to buy out the Korean product triggered a reaction from the Korean media, consumers and activist groups. At this stage the Government still didn’t step in, but the takeover was thwarted as was shown in Section 6.4.4.

As the battle continued between the two products, a price war erupted. Allegations were levelled at Microsoft that they were dumping their Office Suite in South Korea to gain an advantage. This was the point at which the Korean Government finally got involved by launching an investigation into possible dumping strategies, resulting in Microsoft having to amend their campus licensing system to avoid a possibly unfavourable court judgment. Following on from this action, the Korean Government then took a further step by promoting the exclusive use of the Hangul Office Suite in all Government-related organisations. This is another example of Government intervention in the ICT business area.

In the Office Suite example, the protective barrier put in place by the South Korean Government was the requirement that official Government documents be filled in exclusively using Hangul Office files. The restriction effectively forced a large number of organisations to buy the software and use it alone for filling in Governmental forms. This barrier was put in place after the failed takeover attempt of the Korean Company by Microsoft who would have had a virtual monopoly on office software in the domestic market, after buying their local rival when they had financial problems. The barrier was enabled by the fact that Microsoft’s Office programs were not able to open, convert or edit the Hangul Office files because of restrictions built in
to the program. Conversely, the Hangul program was able to open, convert and edit Microsoft Office files.

In the case study analysed in Chapter 7, the Korean Government was even more involved. This study traced the history of the SEED encryption system and how it became associated with Active-X for Online Transactions in South Korea. The SEED system itself was created by a Korean Government agency. Then, legislation was created mandating its use and controlling who could create software to enable it, with only Korean companies given permission to operate. Furthermore, the legislation was expanded when mobile devices arrived on the market. This meant that the Korean Government was an integral part of this business area and they had tight control over how business was conducted.

The encryption itself was not a trade barrier but when combined with the legislation making its use mandatory, and the fact that companies offering the software had to be approved and licensed, it became a trade barrier. In this case, the trade barrier benefitted the domestic companies offering the program but also helped Microsoft, as their browser was the only platform that could support the encryption system.

In Chapter 8, more evidence was presented of Government involvement in the ICT business area. The whole domestic telecommunications industry grew out of a Government monopoly in South Korea. One example shown in the Section 8.3 was the choice of CDMA as the sole operating standard. A Korean Government agency helped to commercialise it along with a U.S partner and then its use was mandated legally. Furthermore, as covered in Section 8.5, a decision to use and develop the WIPI middleware standard was also taken by the Korean Government. In addition, the requirement on the use of Korean mapping technology was a Government law.

This barrier was a middleware platform called WIPI made by the Korean Government to force mobile handset makers and network providers to use the same development system. It did create a single development system, but it also erected a barrier to international companies who would have needed to customise all of their phones to use the system just to operate in the Korean market. Again, this platform was made mandatory by the Korean Government using legislation. The effect of the barrier was
shown within this study by displaying the rapid decline of the market share percentages of international handset makers in the domestic Korean market after the legislation came into force. This was put in place alongside a mapping requirement that forced all phones to use Korean location services only. Both of the requirements together represented a formidable barrier.

As seen in all three case studies, the Government is very intertwined with ICT business in South Korea. The principal control mechanisms used in Korea are Government-funded research bodies that create home-grown standards and legislation to mandate the use of certain technologies. Throughout the case studies shown in this thesis, the effect of Government involvement is apparent. In some cases the changes implemented completely shifted the balance of power in the marketplace. Perhaps the clearest example of this was in the Section 8.4 of the telecommunications chapter, where the market share of international handsets virtually disappeared in a very short period due to Governmental involvement.

The second common theme in all three case studies follows on from the first. It is the complicated network of relationships between business and politics in South Korea. In the Office Suite case study, this was illustrated by how the founder of Hancom ran for election and won a seat in the Korean National Assembly. However, when it looked like Governmental intervention might be looming in this business area, he stepped down. This allowed him to avoid any suggestions of a conflict of interest situation.

In the SEED and Active-X security case study in Chapter 7, the links were even more prevalent. The founders of one of the three companies that benefited from the decision to mandate the use of their technologies became a powerful politician in South Korea. He managed to rise all the way up to a Presidential Election Campaign where he had to explain away allegations of collusion in his business area. He did this by announcing he planned to remove any legislation protecting his company if he was elected.

In the Telecommunications case study covered in Chapter 8, there is less evidence of political-business career crossover. However, Samsung have now become so powerful
in South Korea that the country is now sometimes dubbed ‘the Republic of Samsung’ by reporters and analysts. As mentioned earlier, these career connections are a feature of Korea’s Neo-Confucian past and low inward immigration trends.

The third common theme is that the Korean companies shown in the case studies are all fiercely export-orientated and committed to expansion. As shown in Chapter 6, Hancom tried very hard to diversify their portfolio of products and expand outside Korea on many occasions. In fact, it was unsustainable expansion that got them into financial trouble on more than one occasion. Then, in Chapter 7, one of the main aims of SEED was to create a standard that could be exported outside Korea but that plan never worked out. The companies who created the software used to enable SEED did manage to use their domestic status to branch outside Korea with mixed levels of success. The Telecommunications study in Chapter 8 is the best example with Samsung and LG using their domestic market as the perfect platform to sell their products globally and become market leaders in many areas.

This emphasis on quick expansion and exporting products is a feature that is common to many Korean companies. It comes from the quick economic growth period in the 1960s where the aim of every company steered by the Government was to make products and sell them overseas. Korea has tended to be more successful in the sales of I.T hardware than software products to date though.

In the Netizen Chapter, the influence of online activists was explored. Most of the time, Netizen Communities are small groups dedicated to certain minority interests or campaigns. However, when certain conditions and triggers converge, these groups turn into large social groups that can affect public policies and businesses at a National level. In Chapter Five, a number of these triggers were explored to see if common factors could be identified in the large-scale events. This could help to explain what perceptions lie within the Korean public. The evidence suggested that the key triggers were a perceived threat to Korean Business or cultural independence from a non-Korean organization or state and the Netizen activist groups were largest in response to U.S or Japanese activities. This shows that the influence of Korea’s history has left the country with a suspicion of the intentions of certain countries based on their past actions. Therefore, the Netizens Chapter provides a social
barometer into the attitudes of a large portion of the Korean public. These attitudes help to understand why the Korean Government and business leaders made, and will continue to make, certain decisions to protect local industries.

The Netizens’ influence was covered again in all three of the case studies. In the Office Suite Chapter, an early type of Netizen lobby was a key part of the group that worked to save Hangul software from Microsoft. They worked together on a campaign to get citizen donations in order to create a venture fund that could stave off Microsoft’s takeover advances. In the SEED and Active-X Chapter, the Netizen group, Openweb, rallied against the Korean Government’s decision to mandate the use of SEED and therefore Active-X. Their legal campaign failed, but they continued to try and draw attention to the situation. In the Telecommunications Chapter, the influence of Netizens was less apparent. They did try to force the Government to remove the WIPI requirement for phones because many consumers wanted to use Smartphones, but it was not a huge campaign like some of the other examples shown within the Netizens Chapter.

The Netizens in these case studies did not always take the side that was seeking to protect Korean business. Perhaps this is because consumers have leveled accusations that some Korean companies took advantage of their protected domestic status to overcharge and even price-fix their products at higher prices than equivalent products from international companies trying to get a foothold in the market.

In summary, there are common development characteristics that can be seen in the case studies presented in this study. The most significant ones in the context of this research are the extremely high level of Governmental involvement in business and the network of connections between business and politics. The case studies included in this thesis represent a small sample, but they do suggest that the commonality seen here could exist across a wide range of Korean businesses.

In summary, this thesis has shown that the tariff-based barriers are being dismantled in South Korea for many countries and regions as part of FTA agreements. It has also been made apparent that barriers continue to be used as a strategic tactic by the Korean Government to restrict international companies that could compete directly
with domestic companies within the country. Barriers of this type are also being erected in other countries affecting Korea’s ability to export products but that is outside of the scope of this study. In the case studies put forward as part of this thesis, all of the barriers covered were created by the Korean Government and were supported by legislation that benefitted and protected certain domestic companies.

9.3 Contributions to the Field

The cross-disciplinary nature of this study brings a different perspective to the field. The vast majority of studies on the economic development of South Korea were carried out by economists by focusing solely on the Governmental policies and business approaches taken to nurture growing businesses. The approach taken in this thesis was to try and provide a bigger picture view by including historical, economic, cultural studies and business information research. This means that each individual area was presented as an overview rather than an in-depth study but it does provide all the pieces needed in order to get the overall view.

Then, the strands were pulled together in the case studies that show how the constituent elements are all parts of the puzzle, and how each has its own important place in understanding the larger scheme of things. The case studies focused on ICT and business information to provide practical and contemporary examples of the characteristics shown in earlier chapters. The approach taken in this paper makes it a unique proposition in the field, certainly when it comes to the analysis of Korea’s economic development path.

9.4 Limitations of the Research

As with any study that attempts to cover a large scope, there are some limitations in this research. In the historical section, a deeper treatment of the knowledge transfer from China to Korea in ancient times would have given a more balanced view of interactions. Also, in the Neo-Confucianism Chapter, some of the other influences that are prominent in Korea were not covered. For example, Christians comprise
almost 30% of Korea’s population now, so that makes them a very important group, but the topic had to remain outside of the scope of this study. Moreover, Shamanism and Buddhism also serve as strong cultural influences in Korea and they also contributed to the path-dependent trajectories taken by Korean business owners but this study narrowed the focus to Neo-Confucianism because of its close ties to education and the social networks built up through shared educational experiences amongst the Korea elite.

Another of the limitations here is that only three case studies are included. It would have supported the theory to have more case studies but it would have made the thesis too long. Another limitation alluded to earlier in the text is the fact that this study covered a very broad range of disciplines. Therefore, each of the areas had to be treated as an overview rather than as an in-depth analysis.

One limitation that is often present when analysing the strategies of companies is access to information. Many companies are wary of presenting anything that could place them in a negative light even if it relates to events that took place in the past. Therefore, finding details on the decision-making points for companies is not easy. This was certainly a limitation when it comes to the case study area of this thesis, as it would have been nice to dig deeper into each area and further explore the possibility of collusion between the Government and business owners.

9.5 Possibilities for further research

One prevailing feature of the Internet today is user created content and web based collaboration. As discussed in Chapter 3, one of the central tenets in Korean Neo-Confucianism is identifying your role before communication begins. On the Internet, it is often not necessary or even desirable to give out this information at the beginning of an interaction. For many Korean Internet users, this has been a source of liberation and has revolutionised the way they communicate. However, other users find the absence of the age and social position language constraints that are present in
everyday Korean language use uncomfortable or even offensive when communicating online. This is a very interesting area, and is worthy of further investigation.

The Netizens Chapter was in many ways a part of a potentially larger narrative. This is the story of citizen activism in Korea. It relates to the idea of social justice without legal mechanisms that is common in Neo-Confucianism. When Korean people feel that the idea of social justice has been compromised, it often results in a strong reaction. In this study, the history of social activism was touched upon but it is a subject that could be treated in isolation by tracing the history of social movements in Korea in depth. It would explore how these campaigns have evolved and made use of social media and other communication channels to become effective in swaying public opinion.

In this study, case study examples from the ICT Business area were used to illustrate the characteristics of Korean infant enterprise startup development. Other industries could also be investigated to see if technical barriers to trade exist there too. One area that could potentially provide research evidence would be beef imports. The classification of beef imports based on the cuts of meat and the bone included is quite a technical area and has been a topic of disagreement especially between the U.S and South Korea. This was very briefly touched upon in the Netizen Chapter of this study but it would be a good topic for further research.

Another area closer to the subject of this thesis would be competition between search engines. There is a code that is put into most Korean websites that actually blocks Google and most other search engines. This is a technical barrier to trade but an investigation would need to find out if it does this by accident or design.

9.6 Concluding thoughts

In the 1960s - 80s, the approach taken by South Korea paid clear dividends. Small local enterprises were nurtured and steered into targeted industries and eventually grew into large global players. A new educated middle class was created and living standards were vastly improved in the country. There is no question that this was a
success. There were a number of factors present in Korea though that suggest that it may not be easy for other countries to replicate their approach.

One reason that South Korea was able to erect barriers against the advice and will of large monetary organisations and powerful countries was that they started off flying beneath the radar of those countries. As shown in Chapter 2, when South Korea began their path towards industrialisation, they were economically on a par with some African nations and ranked near the bottom of the list in Asia. This meant that powerful countries did not see them as a trade risk or threat and they were allowed to implement protective trade measures without much opposition. This suggests that it may not be easy for countries to follow in Korea’s footsteps. If others try to emulate Korea’s success it will harder to avoid attention because of the increasing reach of the media nowadays.

The ICT industry is a rapidly evolving area and indications suggest that the speed at which it is changing is showing no sign of slowing down. Therefore, in order to maintain or improve their market position, Korean companies will need to respond to emerging customer demands quickly and identify new opportunities early. Korea, Western Europe and North America can now be considered mature markets in many of the technology fields Korean companies are active in, including smart devices and home consumer electronics. So, in order to stay competitive, Korean companies will have to diversify their offerings and focus on making new features and services available early.

The likelihood is that sales of Korean smart devices will stagnate considerably in the coming years in Western Europe and North America, as buyers will be replacing their smart devices at a lower volume than when they were buying them for the first time. However, this stagnation could be offset by a focus on emerging markets especially in South East Asia. Korea is very well positioned to take advantage of opportunities in that region because Korean Cultural products like TV Shows and Pop Music are already very popular across South East Asia and new products will be able to piggyback on Korea’s strong brand image. In addition, if Korea can continue to be competitive in China, exports will continue to grow there considerably as Chinese consumers are switching to the type of higher-end ICT products that Korea provides.
Also, Korea is now well-positioned to provide software solutions to certain regions. For example in the middle east, Arab leaders often show a preference for user interface designs and systems that come from East Asia for Governmental websites and software, as opposed to those that come from North America and Western Europe. Korea has already had some success in this field and it would appear that there is room for signification expansion. Furthermore, Korean companies are emerging quickly as major providers of gaming systems, especially in the Multiplayer PC area and Smart Device App areas, as opposed to console gaming. Again, Korean companies should be able to capitalise on the large domestic demand for this kind of software and use that as a stepping-stone to global expansion. Protectionist policies are likely to be put in place to ensure minimal domestic competition takes place before the gaming companies reach a certain size.

Overall, it seems that the future of Korea’s ICT business area is reasonably bright. New markets and diversified offerings will sustain the area, even though activity in established mature markets will level off, or even decrease as competition in the area grows. The key business relationship for Korea is likely to be with China, and the USA and Western Europe will begin to be of less importance. Korea’s domestic market will continue to be protected from external competitors based on the use of technical trade barriers and other hurdles when domestic companies are threatened, in order to provide a platform for growth. The main threat to this strategy could come from trade disputes targeting these new types of barriers. However, it seems that the ability to raise and remove these barriers quickly will give countries room to maneuver and adapt to emerging conditions.
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