Strategic Differentiation of Internationalization in the Mobile Telecommunications Industry: Case Studies

Whan-Seon Kim, Myeongho Lee, and Kyung-Don Kim

We present a unified explanation of the internationalization strategies of major mobile network operators (MNOs). We have developed a framework that analyzes the strategies of major international MNOs in terms of the relationship between their degree of involvement in international business operations and the degree of equity participation. The results show a positive association between these two dimensions as expected, but they also reveal some exceptional cases in which certain MNOs are actively involved in the business operations of other foreign MNOs, even with minor (or zero) equity investments. In this paper, we argue that the strategic actions of the major MNOs which are the largest shareholders of foreign MNOs are in an equilibrium status because these major MNOs derive maximum benefit from full or considerable management control and active involvement. Finally, we predict that latecomers (MNOs who are just about to enter foreign telecommunications markets) may adopt an incremental investment approach because most developed markets and deregulated emerging markets with growth potential are already preempted by major MNOs. Therefore, the window of opportunity for internationalization in those markets is currently small.

Keywords: Mobile network operator, internationalization strategy, equity participation, management control.

Manuscript received Aug. 4, 2008; revised Nov. 26, 2008, accepted Dec. 24, 2008.

Whan-Seon Kim (phone: +82 2 300 0775, email: whankim@mju.ac.kr) is with the Department of Management Information System, Myongji University, Seoul, Rep. of Korea.

Myeongho Lee (phone: +82 2 958 3520, email: mhl777@empal.com) was with the Graduate School of Information, Yonsei University, Seoul, Rep. of Korea, and is currently with the Graduate School of Management, KAIST, Seoul, Rep. of Korea.

Kyung-Don Kim (email: kdkim@sktelecom.com) is with Corporate Strategy Team, SK Telecom, Seoul, Rep. of Korea.

I. Introduction

In recent years, there has been widespread and rapid internationalization[1)] of a wide variety of telecommunication carriers, including mobile network operators (MNOs). This is a trend that has accompanied the general level of accelerated economic globalization that has taken place since the mid-1980s. Most major telecommunication carriers have managed to become international companies by successfully expanding their businesses overseas. In particular, investments in mobile telecommunications have been more active than those in fixed telecommunications, as opportunities to expand successfully in fixed telecommunication services are limited by the last mile.[2)]

Increased investments abroad may result from the combined interaction of the environmental forces of policy and technology and the various strategic factors of telecommunication companies. For example, see [1] for a description of numerous strategic and scale drivers of the internationalization of telecommunication companies. Research communities have been paying much attention to the internationalization issues of MNOs. Reference [2] is a survey paper reviewing 356 publications addressing internationalization aspects of the telecommunications service industry and suggesting a future research agenda. The paper shows that the mobile segment of the telecommunications industry is does not feature prominently in scholarly and

1) It is often claimed that telecommunications is a global industry in the sense that companies operating within it have a global presence. Reference [3] examined the sales of the largest 500 multinational enterprises and concluded that most multinationals are in fact regional and not globally focused. Also, according to [4], close examination of individual MNOs demonstrates that most are bi-regional at best. Therefore, this paper uses the terms 'international' and 'internationalization' rather than 'global' and 'globalization'.

2) The last mile is the final leg of delivering connectivity from a communications provider to a customer.

industry publications because it is in its early life cycle stages. Reference [4] focuses on the measurement of internationalization within the mobile telecommunications industry and concludes that only a few MNOs can be considered international considering the measurement criteria suggested in the paper. References [5] to [7] are empirical studies on the behavior and performance of MNOs. Reference [5] conducts correlation and regression analyses of the relationship between the degree of internationalization and the financial performance of 14 European MNOs. In [6] and [7], empirical analyses of various hypotheses relating to international expansion moves of MNOs are presented. While most of these studies employ a quantitative approach to empirical analysis, this paper adopts a multiple case study analysis and descriptively analyzes similarities of and differences between major[3] MNOs' internationalization strategies.

The factors influencing this kind of internationalization are so diverse that patterns and motivations may appear chaotic in real-world cases, so they are usually difficult to explain. This paper attempts to analyze these kinds of real-world cases. In section II, several accounts of the motives and incentives for the internationalization of MNOs are provided. These motives and incentives are used to derive four key strategies. Section III presents an analytical framework to explain the strategic differentiation of the internationalization policies of MNOs in terms of two dimensions. Following this, there is a discussion of specific major international MNO cases in section IV. Finally, the main findings are summarized in section V, and their implications are discussed.

II. Motives and Incentives for the Internationalization of MNOs

In this section, some key factors[4] that drive and enable the internationalization strategies of MNOs are discussed. While [8] discusses theoretical drivers of internationalization on a generic level, [1] reviews them in the specific context of telecommunications, and [5] identifies several categories of internationalization impetus in the more specific context of mobile telecommunications. Mostly based on [1] and [5], we have chosen key factors that are most relevant to the key strategies to be identified in our analytical framework in the next section.

3) 'Major' international MNOs are MNOs, exclusive of MVNOs (Mobile Virtual Network Operators), whose main activities have recently focused on international markets, such as investing in foreign MNOs and forming strategic alliances with them. In this paper, such MNOs include Vodafone, Telefonica, T-Mobile, Hutchison, SingTel, and NTT DoCoMo, which are home based in the UK, Spain, Germany, Hong Kong, Singapore, and Japan, respectively.

4) These factors are not mutually exclusive, nor collectively exhaustive. Also, some MNOs may have multiple motives and incentives for internationalization.

The first influential factor is the *regulatory environment* of the country. Internationalization has become possible partly due to shifts in environmental forces, such as deregulation, privatization, and liberalization, since the 1980s [9]. For instance, this factor is the common driving force behind Telefonica's investment in Morocco and T-Mobile's investment in Poland. In these two countries, the governments opened their mobile markets to foreign investors in order to privatize their state-owned MNOs. Telecommunications, historically considered a natural monopoly and a domestic industry, is now bringing new opportunities for players in the international market—a trend which has been accelerated by the World Trade Organization (WTO) agreement, made in 1997, for the telecommunications sector [10].

The second factor is *growth concerns*. MNOs often have incentives to invest abroad in order to avoid the fiercely competitive situations in their own domestic markets. As any given telecommunications market grows and matures, domestic demand for mobile services soon reaches a saturation point and shows limited growth opportunities [11]. Moreover, widespread deregulation and increased competition in once-protected domestic markets may prompt MNOs to vigorously seek new foreign markets.

For instance, because of their small and slowly growing domestic market, Singapore's SingTel now has a 100% stake in Optus of Australia, so that revenues generated from this foreign market can be included in the overall revenues of Singtel's consolidated financial statements. Such growth concerns are the main motivation behind the internationalization efforts of all other MNOs which have invested in foreign markets with the purpose of increasing overall revenues in their consolidated financial statements.

The third factor is *economic gains*. MNOs with bigger networks can utilize economies of scale when constructing networks and managing traffic (especially if those networks are contiguous enough) and can realize enhanced buying power [1]. For instance, Telefonica realized the benefits of purchasing cost synergies, as recorded in its 2005 IR document (available at http://www.telefonica.es/investors). In this report, it can be seen that the average costs per GSM base station and low end handset in 2005 decreased by 55% and 28%, respectively, compared with those same costs in 2004. Moreover, Vodafone announced in its 2005 annual report that it achieved a cost saving of 0.3 billion pounds, arising primarily from standardization of handsets and accessories. These benefits were made possible through better management of volumes across Europe and greater efficiency in logistics.

International companies can benefit from arbitrage and diversification of investment portfolios across diverse markets [1]. Moreover, operators with competitive and comparative

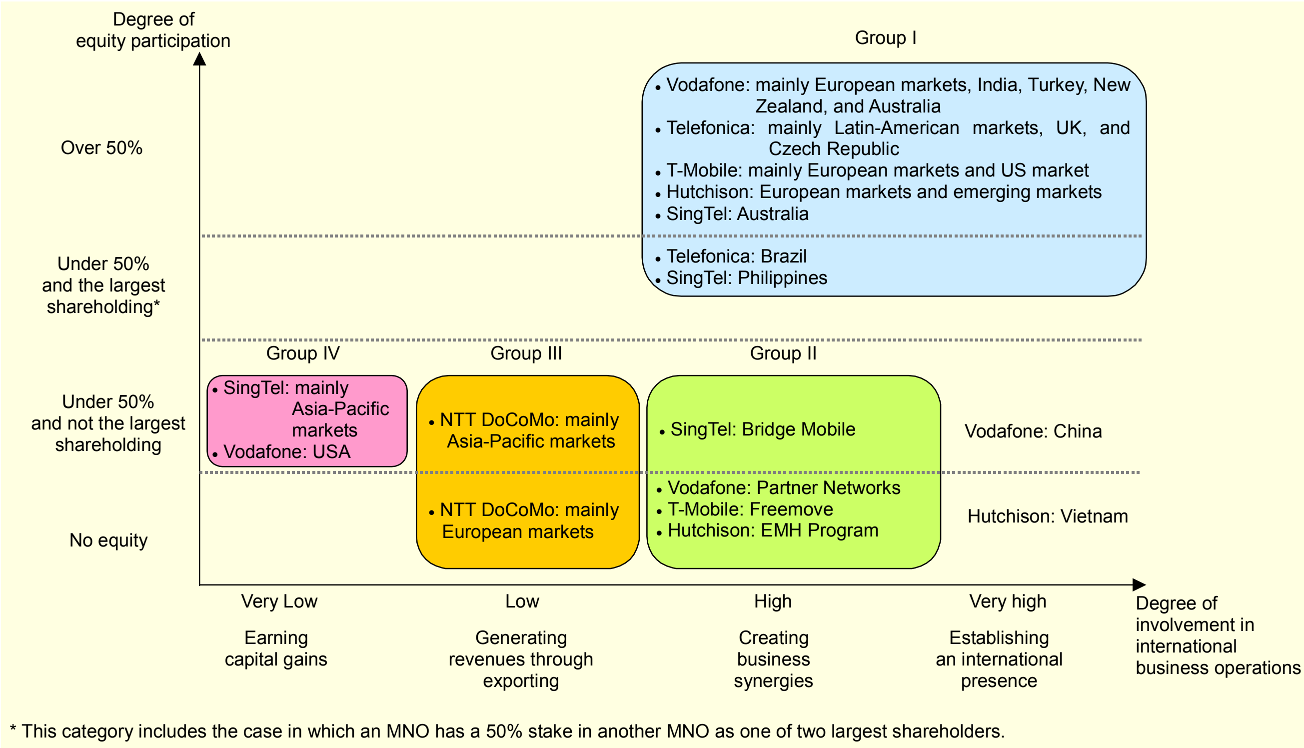

Fig. 1. Analytical framework.

advantages may earn revenues by using existing assets in management and technical know-how as test-beds in their further expansion. As a typical example, NTT DoCoMo currently exports its wireless Internet platforms and services that have been successful in the Japanese domestic market.

The fourth factor is *first-mover preemption*. Reference [1] states that in the telecommunications sector, early movers gain substantial first-mover advantages due to the transient nature of the windows of market opportunity and the potential to influence the regulatory process as an incumbent. This may be particularly relevant in the mobile marketplace in which players are strictly restricted due to limitations in the available spectrum. Moreover, many governments allow very limited entry to foreign operators.

For instance, one of the main reasons behind the acceleration of the foreign investments of Korean MNOs was the fear that the core CDMA technology used in Korean systems might be stranded if major international operators using GSM technology preempt global markets. Moreover, to preempt the emergence of a global standard setter in wireless Internet, Japan's NTT DoCoMo has formed an i-mode[5] alliance with foreign MNOs in the Asia-Pacific and European markets.

The fifth factor is *systemic ownership advantages*. Reference [1] states that "systemic ownership advantages accrue through international presence, as global standard-setting in the technologically volatile telecom industry assumes critical importance, and as external stakeholders, such as financial institutions, assign increasing salience to market capitalization in an era of mergers and acquisitions." Also, according to the article, the international presence of telecommunication carriers, including MNOs, enhances its influences over institutions such as the International Telecommunications Union, and standard-setting negotiations with other carriers and equipment manufacturers.

III. Analytical Framework

Section II covered some key factors that drive and enable the internationalization strategies of MNOs. According to [5], the extent to which each of the driving factors accounting for business internationalization is actually relevant to an individual MNO depends on the firm's market environment and its fit with its resource base. This fit is likely to vary among MNOs. Therefore, at any point in time, the degree of business internationalization varies substantially among MNOs. Also, [12] emphasizes the asymmetric impact of internationalization drivers, mentioning that differences in strategy could have been derived from the uneven effects of the core drivers of internationalization in the telecommunications sector.

Therefore, to analyze the strategic differentiation of major

5) The brand name of NTT DoCoMo's wireless Internet service

international MNOs, we identify four types of key strategies used to realize the motives/incentives[6] mentioned in section II and order them by the degree of involvement in international business operations. These strategic categories represent the dimension of the *X* axis in the proposed analytical framework as shown in Fig. 1. Since no relevant research has been found identifying these kinds of strategic categories, especially in the context of MNOs' internationalization, we have scrutinized the strategic behaviors of the relevant MNOs using their recent company reports and announcements (all available via their respective web sites). Therefore, the four types of strategies extracted describe the experience of MNOs and allow for similarities and differences among MNOs to be identified. We provide an explicit definition of each strategic category below.

The strategic categories are the following: "Establishing an international presence," "Creating business synergies," "Generating revenues through exporting" and "Earning capital gains." The first two categories require more involvement than the third and fourth categories. Thus, an MNO that fulfills the requirements of the first two strategic categories can possibly fulfill those of the third and fourth categories at the same time at its own will. This also means that an MNO pursuing the former categories has the potential to pursue the latter categories as well, but whether or not to pursue them at the same time depends on its decisions regarding its current strategic focus. For example, an MNO with the strategic purpose of establishing an international presence may decide to also create business synergies and earn significant capital gains as well.

1. Establishing an International Presence

A domestic MNO invests in a foreign MNO to expand its own market internationally as a growth strategy. Most MNOs investing with this purpose try to obtain major stakes[7] in foreign MNOs so that the revenues generated from the foreign markets can be included in the overall revenues reflected in their consolidated financial statements. Therefore, most MNOs that implement this strategy are also the most actively involved in international business operations in order to increase their overall revenues.

2. Creating Business Synergies

When international MNOs use this strategy, they focus on creating business synergies based on economies of scale. This strategy also requires their active involvement in the international business operations so the fact that operational cost savings can be achieved in their international markets. Several forms of implementation of this strategy are listed here. An MNO may pursue joint procurement of network equipment or handsets for its foreign markets. Also, several MNOs may collaborate for the same purpose. An MNO may use an international branding strategy to save on marketing expenses. Finally, some MNOs make strategic alliances for roaming services. This strategy may be implemented with or without an equity investment depending on the situation.

3. Generating Revenues through Exporting

When using this strategy, MNOs export services or technologies that have been proven to be competitive in their own domestic markets to foreign markets. These services are in most cases consultancy services, and MNOs transfer their own marketing and operational skills to other foreign MNOs. The technologies are proprietary, such as wireless Internet platforms and solutions, and the MNOs receive royalties from their foreign MNOs through licensing agreements. The objective of this strategy is to generate additional revenues by utilizing existing competencies. Therefore, it requires relatively less involvement than the previously mentioned strategies. Also, depending on the situation, this strategy may be implemented with or without an equity investment.

4. Earning Capital Gains

A domestic MNO investing in a foreign MNO simply wishes to increase the amount of non-operating profit that can be distributed in the form of dividends to shareholders. Therefore, the role of an MNO in a specific foreign market is that of a financial investor, so this strategy requires almost no involvement in the foreign MNO's business operations.

To achieve their goals in each of the four internationalization strategies mentioned above, international MNOs use investment strategies based on the amount of equity participation given their resources and the foreign market status. Reference [7] analyzes the determinants of MNOs' choice of cross-border entry modes and presents an analytical framework in which one of the two dimensions of entry mode choices is equity shares: minority vs. majority equity shares. In our analytical framework, we subdivide the dimension of equity shares and classify it into four categories (based on the degree of equity participation) as follows: "Over 50%," "Under 50% and the largest shareholding," "Under 50% and not the largest shareholding," and "No equity." Each category implies the

6) As mentioned in footnote 4, some MNOs may have multiple motives/incentives for internationalization. For instance, their strategic focus of "generating revenues through exporting" may be associated with the motives/incentives of "regulatory environment," "growth concern" and "economic gains."

7) For example, Korean Generally Accepted Accounting Principles (GAAP) specify that company A must hold more than 50% shares or more than 30% shares as the largest shareholder of company B, so that B's revenues can be included in A's consolidated financial statement.

following principles of management control (in general):

- "Over 50%" means that the investor has a more than 50% stake and is the largest shareholder of the investee. Therefore, the investor has full management control over the investee.
- "Under 50% and the largest shareholding" means that the investor has a less than 50% stake but is still the largest shareholder of the investee. Therefore, the investor does not command full management control, but still has considerable control. This category is defined to include cases in which the investor has an exactly 50% stake in the investee as one of the two largest shareholders.
- "Under 50% and not the largest shareholding" means that the investor has a less than 50% stake and is not the largest shareholder of the investee. Therefore, the investor has limited management control over the investee.
- "No equity" means no equity investment and therefore implies no management control over the partner.

There may be some exceptional cases[8)] that do not exactly match the above implications of management control. These cases are dealt with separately and explained in detail.

Finally, we develop a framework to analyze the relationship between the degree of involvement in international business operations and the degree of equity participation or management control. This framework is shown in Fig. 1.

IV. Case Analysis

While the most recent publications regarding the internationalization of MNO's have employed a quantitative approach of empirical analysis [4]-[7], this paper adopts a multiple case study analysis and descriptively analyzes major MNOs' internationalization strategies. A case study method may successfully provide a holistic view of an incident under investigation [13], and the complexity with respect to the number of factors and their interrelationship suggest case study methodology as the best alternative for achieving an in-depth understanding [14]. In case studies working on small samples, the objective is to select informative and typical cases rather than trying to have a statistical representation of the total population [14], [15]. As stated in footnote 3, six MNOs that have been most active in their internationalization activities are selected, and similarities and differences between their internationalization strategies are scrutinized based on their recent company reports and announcements as well as consulting reports and relevant publications listed in the references of this paper.

In this section, the analytical framework is applied to the major international MNOs. The cases are grouped based on the similarities of their strategic actions, and the results are shown in Fig. 1. Figure 1 shows four groups which have the same strategic focus and two other distinctive cases. Actual numbers of equity shares in the cases are provided in Table 1.

1. Analysis of Cases in Group I

Group I in Fig. 1 represents domestic MNOs that have invested heavily in foreign MNOs with the purposes of establishing an international presence as well as creating business synergies. Group I includes Vodafone, Telefonica, T-Mobile, Hutchison, and SingTel. They are the largest shareholders and actively participate in the management of the foreign MNOs in which they have invested.

Vodafone is the largest shareholder in many European countries, India, Turkey, New Zealand, and Australia, as shown in Table 1. It has equity interests in more than 20 countries, and in each country it has aimed for a controlling share of the number one or two MNOs. More than 80% of Vodafone's revenues are generated from foreign markets.

Vodafone has become an international player through aggressive merger and acquisition activities and has implemented a "buy and rebrand" approach. Most of Vodafone's foreign subsidiaries have the consistent brand name of "Vodafone Country-name" and wireless Internet services in all its foreign markets have the same "Vodafone Live" brand. Vodafone's international branding strategy has managed to establish the most powerful brand image among all the major international MNOs and has reinforced its international presence. These achievements were made possible by its ownership of the largest shareholdings in the foreign MNOs.

Vodafone has executed a group-wide business integration program called "One Vodafone." Its focus is to leverage the scale and scope of Vodafone's international footprint. The key areas of the business include network development and operations, information technology, and supply chain management [16]. Especially with the "Vodafone Live" service, business synergies can be created through joint platform developments, joint content contracts, and joint handset purchases.

Telefonica's initial market development strategy involved expanding the company's international footprint mainly in emerging markets instead of advanced markets. With this strategy, Spain's Telefonica focused on the Latin-American region (Mexico, El Salvador, and Brazil) since this area showed high levels of cultural similarity to its domestic market as well as high growth potential. Regarding investment in Brazil, Telefonica and Portugal Telecom each own a 50% stake in Brasilcel, respectively, as a joint venture. Brasilcel[9)] is the

8) For example, some shareholders of an investee, which are in the "Under 50% and the largest shareholding" or "Under 50% and not the largest shareholding" category, can build an alliance to increase their influence on the management.

9) Brasilcel is just a holding company, not an operating company.

Table 1. Major international MNOs' investments in foreign markets.

MNO	Country (company name, equity ownership)
Vodafone (As of July 2008)	Albania (Vodafone Albania ShA, 99.9%), Australia (Vodafone Australia Limited, 100%), Bahrain (MTC Vodafone BSC, 6.25%), China (China Mobile Hong Kong Limited, 3.3%), Czech Republic (Vodafone Czech Republic, 100%), Egypt (Vodafone Egypt Telecommunications SAE, 54.9%), Fiji (Vodafone Fiji Limited, 49.0%), France (Societe Francaise du Radiotelephone SA, 97.4%), Germany (Vodafone D2 GmbH, 100%), Greece (Vodafone-Panafon Greek Telecommunication, 99.9%), Hungary (Vodafone Hungary Mobile Communications Limited, 100%), India (Vodafone Essar Limited, 51.6%), Ireland (Vodafone Ireland Limited, 100%), Italy (Vodafone Omnitel NV, 76.9%), Kenya (Safarcom Limited, 35.0%), Malta (Vodafone Malta Limited, 100%), Netherland (Vodafone Libertel NV, 100%), New Zealand (Vodafone New Zealand Limited, 100%), Northern Cyprus (Vodafone Mobile Operation Limited, 100%), Poland (Polkomtel SA, 19.6%), Portugal (Vodafone Telecommunication Pessoais SA, 100%), Romania (Mobifone SA, 100%), South Africa (Vodacom Group Limited, 50%), Spain (Vodafone Espana SA, 100%), Turkey (Vodafone Telekomunikasyon A.S., 100%), US (Verizon Wireless, 45%)
Telefonica (As of Dec. 2007)	Argentina (TCP Argentina 100%), Brasil (Brasilcel, 50%), Chile (TM Chile 100%), Colombia (Telefonica Moviles Colombia, 100%), Czech Republic (Telefonica O2 Czech Republic, 69.41%), Ecuador (Otecel, 100%), El Salvador (Telefonica Moviles El Salvador, 99.08%), Guatemala (Telefonica Moviles Guatemala, 100%), Ireland (O2, 100%), Mexico (Telefonica Moviles Mexico, 100%), Morocco (Medi Telecom, 32.18%), Nicaragua (Telefonia Celular Nicaragua, 100%), Panama (Telefonica Moviles Panama, 99.98%), Peru (Telefonica Moviles Peru, 98.5%), Portugal (Portugal Telecom, 8.21%), Uruguay (Telefonica Moviles del Uruguay, 100%), Venezuela (Telcel, 100%), UK(O2, 100%)
T-Mobile (As of July 2008)	Austria (T-Mobile Austria, 100%), Croatia (T-Mobile Croatia, 100%), Czech Republic (T-Mobile Czech Republic, 60.8%), Hungary (Magyar Telekom NyRt, 59.2%), Macedonia (T-Mobile Macedonia, 56.67%), Montenegro (Telekom Montenegro, 76.53%), Netherlands (T-Mobile Netherlands, 100%), Poland (PTC Era, 97%), Slovakia (T-Mobile Slovakia, 51%), UK (T-Mobile UK, 100%), USA (T-Mobile USA, 100%)
Hutchison (As of Dec. 2007)	Australia (3 Australia, 50.03%), Austria (Hutchison 3G Austria, 100%), Denmark (H3G Denmark ApS, 60%), Ghana (Hutch GHANA, 80%), Indonesia (Hutchison CPT, 60%), Ireland (Hutchison 3G Ireland, 100%), Israel (Partner Telecom, 50.2%), Italy (H3G SpA, 97.2%), Norway (H3G Access Norway, 60%), Sri Lanka (Hutch Sri Lanka, 100%), Sweden (H3G Access AB, 60%), Thailand (Hutch CAT, 66.5%), UK (Hutchison 3G UK Limited, 100%),
SingTel (As of Dec. 2007)	Australia (Optus, 100%), Philippines (Globe, common shares: 45.1%, total shares considering voting-preferred shares: 21.1%)*, Indonesia (Telkomsel, 35.0%), India (Bharti, 30.5%), Thailand (AIS, 21.4%), Bangladesh (PBTL, 45%), Parkistan (Warid Telecom, 30%)
NTT DoCoMo (As of Jan. 2007)	Honk Kong (Hutchison 3G HK 24.1%, Hutchison Telephone Company Limited 24.1%), Philippines (PLDT, 14.0%), Rep. of Korea (KTF, 10.3%), Taiwan (Far EasTone, 4.7%)

* The unlisted preferred shares hold the voting power while the common shares hold the economic interest.

largest shareholder of Vivo Participacoes, the number one MNO in Brazil. Therefore, Telefonica has considerable control over Vivo Participacoes as long as it is not in conflict with its partner, Portugal Telecom.

In 2004, Telefonica reinforced its international presence by also acquiring BellSouth's operations in the same region, including countries such as Argentina, Chile, Colombia, Ecuador, Guatemala, Nicaragua, Panama, Peru, Uruguay, and Venezuela. The purchase of O2 by Telefonica in 2006 changed its strategic orientation, and it is now increasingly bipolar with investments in both Latin America and Europe. It owns 100% of the shares of O2 in the UK and in Ireland, and is also the largest shareholder in the Czech Republic.

Given Telefonica's full or considerable management control in the Latin-American market, the company aims to obtain substantial benefits from economies of scale and synergies through integrated management of its Latin-American operations. More specifically, it is pursuing marketing, financing, and purchasing cost synergies and disseminating best practices into all its foreign markets by leveraging the home market, Spain, as a "center of excellence." Since customers in both this home market and the Latin-American market (with the exception of Brazil) use the same language, Telefonica can achieve cost advantages in developing platforms and procuring content for its wireless Internet and portal services.

T-Mobile International has a strong international presence in the Western European market (including the UK, Germany, the Netherlands, and Austria), the Eastern European market (including the Czech Republic, Poland, Croatia, Hungary, Slovakia, and Montenegro), and the US market. T-Mobile's strong presence in Eastern Europe is a key factor that differentiates them from their European competitors, such as Vodafone and Telefonica, whose presence in the market remains limited.

Given the level of management control, the specific company names were all rebranded[10] as "T-Mobile Country-name" except in the cases of Montenegro and Hungary. T-Mobile is one of the few international MNOs in the US market that has rebranded the company it has acquired into its common international brand.

The launch of the "t-zones" portal service in 2003 indicates T-Mobile's strategy of focusing on mobile data activities. It also signals T-Mobile's determination to position itself as a key international provider of mass-market mobile data services in all of its markets. Also, T-Mobile has carried out a cost-saving program called "Save for Growth." Under this program, it has integrated its international operations into a single company and developed a seamless international product portfolio based on a unified technology platform.

The Hutchison Whampoa Ltd. (HWL) Group has two subsidiaries which have command of their mobile business operations: 3Group and Hutchison Telecommunication International Ltd. (HTIL). 3Group is mainly responsible for the European market (including the UK, Italy, Sweden, Denmark, Norway, Austria, and Ireland). It is also accountable for the Australian market. HTIL is responsible for other emerging markets, including Israel, Indonesia, Thailand, Sri Lanka, Ghana, and Argentina. It is also accountable for its own domestic market, Hong Kong. These two subsidiaries have over 50% stakes and therefore command full management control in all their markets. Moreover, they have arrived at a non-competitive agreement that gives them exclusive rights to their own markets and prevents them from competing with each other.

3Group and HTIL have also implemented different international expansion strategies. 3Group entered mature markets, such as those of developed European countries, with the purpose of being a first mover in the 3G sector of each market. Therefore, unlike other major competitors, it invested aggressively in developing and upgrading 3G networks after acquiring the operational licenses in those markets. This established Hutchison's image as a pure 3G service provider. Furthermore, 3Group uses a common international brand "3" in all of its markets, with the purposes of establishing an international presence for 3G and creating marketing synergies.

On the other hand, HTIL entered the emerging markets of developing countries, which have high growth potential given their low penetration rates. HTIL's strategy was meant to generate revenues by providing mobile services and to earn capital gains by increasing market values or through IPOs of the MNOs invested in those markets.

Given the saturated domestic market in Singapore, SingTel has invested mainly in the Asia-Pacific market for growth. It has a 100% stake and therefore full management control of Optus in Australia. SingTel invested heavily in Optus because the Australian telecommunications market is deregulated and open to foreign investment. Furthermore, Australia is politically and economically stable; therefore its market is less risky than other markets in the Asia-Pacific region.

SingTel has also invested in Globe Telecom in the Philippines. To circumvent the foreign ownership restriction, Globe Telecom has unlisted preferred shares with voting power[11] that must be partly owned by Ayala Corp. and any other domestic entity for the remaining portion. Although SingTel holds 45.1% ownership of the common shares and is the largest shareholder, its total equity ownership considering the preferred shares with voting power is only 21.1%. Therefore, management control over Globe Telecom remains with Ayala Corp. This case is considered exceptional as it does not exactly match the implications of management control in the analytical framework, since the "Under 50% and the largest shareholding" category implies considerable management control in general, as mentioned in section III.

2. Analysis of Cases in Group II

Group II in Fig. 1 represents MNOs whose strategic focus is mainly to create business synergies. However, these MNOs are not the largest shareholders, nor do they have any equities.

SingTel formed the Bridge Mobile alliance as a joint venture with seven other MNOs, among which SingTel has equity stakes in Optus (Australia), Bharti (India), Globe (Philippines), Telkomsel (Indonesia), and AIS (Thailand). Although this alliance is led by SingTel, all the companies agreed on a "partnership of equals" so that benefits from the alliance are not solely concentrated on SingTel or any other specific MNO.

The objectives of this alliance are to develop a regional mobile infrastructure and common service platform and leverage economies of scale, particularly in handset procurement. The alliance will potentially reinforce SingTel's regional presence in the Asia-Pacific market. SingTel now has the opportunity to leverage its investments through the alliance more effectively, given that it has had some problems in creating business synergies due to lack of management control over the MNOs in which it had invested.

Vodafone formed the "Partner Networks" alliance with 33 foreign MNOs in which it had no stakes at all. This alliance was made to enable those MNOs to provide roaming services to all their customers and portal/content services to the "Vodafone Live" or "Vodafone Live with 3G" customers. Among the 33 participants, 5 MNOs in Cyprus, Hong Kong,

10) However, this does not imply that full management control is an absolute prerequisite for rebranding. As a matter of fact, there are some cases where the brand of a specific MNO is used as that of another MNO in which the former has no equity investment at all. Vodafone's "Partner Networks" alliance is an example, which is discussed in the next section.

11) In general, voting power is held by the common shares, not the preferred shares.

Iceland, Kuwait, and Slovenia are using the dual brands of Cytamobile-Vodafone, SmarTone-Vodafone, Og-Vodafone, MTC-Vodafone, and si.mobile-Vodafone, respectively. This shows that Vodafone exercises some control through contracts over the MNOs even with no equity investments in them. Therefore, this case must be regarded as another exception that does not exactly match the implications of management control in the analytical framework, since the 'No equity' category implies no management control in general, as mentioned in section III.

In direct response to Vodafone's dominance in Europe, an alliance with the brand name "FreeMove" was formed among some European MNOs including T-Mobile, Orange, and Telecom Italia Mobile. In this alliance, like that of Vodafone, member MNOs do not incur any equity investment costs. The brand is maintained as an add-on to the MNOs' existing brands. The alliance was established to enable members to compete effectively with Vodafone and create operational and marketing synergies, such as providing seamless roaming services to their customers and increasing their bargaining power with handset and equipment providers.

Finally, Hutchison formed the "Asia-Pacific Mobile Alliance" with seven Asian MNOs, including Japan's NTT DoCoMo and KTF, a Korean MNO. It also joined the Emerging Market Handset (EMH) program for joint handset purchasing and roaming services among the GSM Association (GSMA) participants in developing countries.

3. Analysis of Cases in Group III

Group III in Fig. 1 includes MNOs that export their competitive services or technologies with or without an equity investment.

Given the great losses incurred in their investments in MNOs in the US and European markets, NTT DoCoMo changed its international expansion strategy in 2001 from equity investment to technology or service exports. More specifically, the company is now focusing on exporting its i-mode platform and services to foreign MNOs based on licensing agreements. This strategy of licensing proprietary technologies has been implemented both with and without equity investments. The instances without equity investments include licensing agreements with Bouygues S.A. (France), Telefonica (Spain), WIND (Italia), COSMOTE (Greece), KPN Mobile (Netherlands), BASE (Belgium), O2 (UK), O2 (Ireland), GLOBUL (Bulgaria), COSMOTE Romania (Romania), and Cellcom Israel (Israel). The instances with equity investments include licensing agreements with Hutchison 3G (Hong Kong), PLDT (Philippines), KTF (Rep. of Korea), and Far EasTone (Taiwan).

One of the objectives of having a stake is to earn capital gains, in addition to royalty revenues, by increasing market value. The other objective is to maintain a partnership, thereby influencing the on-going promotion of i-mode. However, with minority stakes or no stakes at all, NTT DoCoMo was not able to push its own brand in all its markets. Therefore, the i-mode services operate under different brand names depending on each MNO: for example, mMode by Cingular and e-mocion by Telefonica.

4. Analysis of Cases in Group IV

Group IV in Fig. 1 includes MNOs seeking nothing but capital gains from their investments. One example of this is SingTel, which has invested mainly in the Asia-Pacific market, including Indonesia, India, Thailand, and Bangladesh. SingTel's equity investments are all either the number one or two operator in the market, but none currently represent the largest shareholdings. SingTel's investment strategy is to initially secure some minor shares of a leading MNO in each market and save the dividends from the shares. Later, SingTel will continue to increase its shareholdings by investing the saved dividends and finally secure management control. However, this conservative investment strategy currently limits the amount of influence SingTel has over its investments and the number of business synergies.

Vodafone holds a 45% stake in Verizon Wireless, the dominant CDMA operator in the USA, and is the second-largest shareholder. Given its limited amount of management control, Vodafone does not have sufficient power to push its own brand in the USA. Furthermore, Vodafone's GSM and Verizon Wireless' CDMA systems are non-interoperable. These factors limit the amount of influence Vodafone has over its investments and the number of business synergies, as in the case of SingTel's investments in the Asia-Pacific market.

5. Vodafone's Entry into the Chinese Market

The Chinese telecommunications market is a closed market with only two state-owned MNOs and highly restricted foreign investment opportunities. Although Vodafone holds only a 3.30% stake in China Mobile, the number one operator in the market, it is the largest foreign shareholder of the company. Given the rigid regulatory environment and cultural differences, Vodafone has adopted a smooth strategy as a shareholder of the local operator, instead of trying to build a joint venture company to contest an operational license directly.

Also, given the strategic decision of a bottom-up and indirect approach, Vodafone HQ opened a Vodafone China office even though it has only a 3.30% stake in the Chinese market. Although its short-term goal is to earn capital gains, its ultimate long-term goal is to increase its possibility of entering the market. Therefore, if and when local regulations are relaxed, there is the possibility that Vodafone's role in the market may shift from a pure capital investor into a mobile network operator. On the other hand, it is also possible that Vodafone may not be able to raise its stake in China, since this would be very costly and its shareholders may not welcome such a large investment given the uncertain rate of return.

6. Hutchison's Entry into the Vietnamese Market

Hutchison entered the Vietnamese market through a business cooperation contract (BCC). With the strict regulations on foreign investments in Vietnam, foreign firms are not allowed to form joint ventures with local telecommunication partners. Therefore, a BCC is a way for a foreign MNO to invest indirectly in the Vietnamese mobile market.

The BCC is a bilateral contract between HTIL and Hanoi Telecom, its Vietnamese partner. Hanoi Telecom is responsible for acquiring the necessary frequency bands and operating licenses from the Vietnamese government. HTIL invests in the form of CAPEX[12)] for the network infrastructure developments and also takes charge of network and service operations. As the BCC is not a joint venture, but merely a contract, HTIL receives no equity for its CAPEX investment. Instead, all operating profits are shared equally. Therefore, the BCC is a special form of indirect investment which exists in order to bypass local regulations.

Hutchison entered the Vietnamese market through the BCC with the hope that local restrictions on foreign investments will be relieved in the near future.[13)] If this were to happen, the BCC could be transformed into a joint venture, and HTIL could have full or considerable management control of the market, as it currently has in other foreign markets. Therefore, its ultimate goals are to establish an international presence and to create business synergies in the East-Asian market in the future.

V. Strategic Implications and Conclusions

In this paper, we presented a framework to analyze the entry of major international MNOs into foreign markets and demonstrated its use through case analyses. As mentioned in section I, the factors influencing the internationalization of MNOs are so diverse that the patterns of and motivations behind internationalization appear to be chaotic and difficult to explain in real-world cases. However, we aimed to present an organized explanation of this kind of internationalization and possibly foresee some future evolutionary paths.

As expected, Fig. 1 shows a positive association between the involvements of MNOs in international business operations and their equity participation. However, Fig. 1 also reveals some exceptional cases in which MNOs such as Vodafone and Hutchison are actively involved in the business operations of foreign MNOs in such markets as China and Vietnam, even with little or no equity investment. Given the uncertain regulatory environments of these kinds of socialist states, Vodafone and Hutchison will be seen to have adopted a smooth strategy if these markets with high growth potential are opened to foreign investors. The success of their long-term wait-and-see approach depends on whether and how soon the markets are opened. If the markets are opened, there is the possibility that Vodafone and Hutchison may invest more aggressively in the Chinese and the Vietnamese markets, which will then reposition these two cases into the group I category in Fig. 1. However, it is also possible that this may not happen at all because their respective shareholders may not welcome such large investments given the uncertain rates of return.

Another interesting point regarding group IV is that although neither SingTel nor Vodafone are the largest shareholders in the Asia-Pacific and US markets, they show different strategic actions as well as different outcomes. Since they are not the largest shareholders, the amount of influence they have over their investments is limited. Especially regarding the case of Vodafone in the US market, the non-interoperability between the GSM and CDMA systems further limits Vodafone's involvement in the business operations of Verizon Wireless. However, SingTel was able to overcome a similar problem by forming an alliance, in the form of a joint venture with other MNOs in which it now has equity stakes, and increasing its involvement in their business operations. This alliance is positioned in group II and SingTel is leveraging its investments more effectively through the alliance. SingTel's international strategy may eventually evolve to place it in group I by increasing its shareholdings as the regulatory environment in the Asia-Pacific market becomes more favorable.

It can be argued that the strategic actions of the major MNOs in group I[14)] are in an equilibrium status since it is unlikely that they will change their strategies and deviate from their current positions in their respective markets. This is because they have already established an international presence and are enjoying the maximum benefit of full or considerable management control and active involvement. Therefore, they may have no incentive to change their strategic actions in their markets unless market conditions change suddenly.

12) Capital expenditure: expenditures used by a company to acquire or upgrade physical assets such as equipment, property, industrial buildings

13) The Vietnamese government has announced in the past that the restrictions will be relieved after it joins the World Trade Organization (WTO).

14) In this argument, the case of SingTel's investment in Philippines is excluded, which is an exceptional case that does not exactly match the implications of management control in the analytical framework.

There are some other dimensions that are not explicitly indicated by the above discussion, but are implicitly embedded in the analytical framework. References [17] and [18] have suggested four principal dimensions of distance in the cultural, administrative, geographic, and economic (CAGE) distance framework in the evaluation of foreign markets. These four dimensions include *cultural* distance, *administrative* or political distance, *geographic* distance, and *economic* distance. Here, "distance" means distance between two countries, with one country as an investor and the other one as an investee. These dimensions may be able to explain an MNO's strategic differentiation of internationalization in different foreign markets.

By applying the CAGE distance framework to the cases of the major MNOs in Fig. 1, it can be seen that Telefonica, T-Mobile, and SingTel all receive relatively higher valuations of "nearness" in terms of the four distance measures. Telefonica's strategy of focusing on the Latin-American market is good in that the market is culturally, politically, and economically in close proximity to its domestic market. T-Mobile's focus on the European market and SingTel's focus on the Asia-Pacific market are also good in that their markets are culturally, administratively, geographically, and economically in close proximity.

On the other hand, Vodafone's previous investment in the Japanese market seemed less advantageous since the market is both culturally and geographically distant from its domestic market. In fact, Vodafone announced in 2006 that it sold off Vodafone Japan, its Japanese subsidiary, to Softbank and exited from the Japanese market. Also, Vodafone's decisions to exit from the Belgian and Swiss markets in 2006 can be partly explained with the dimension of administrative distance. The largest shareholders of Belgacom Mobile (Belgium) and Swisscom Mobile (Switzerland), in both of which Vodafone has invested, are the state operators, Belgacom and Swisscom, respectively. Given that these markets are administratively distant, Vodafone entered each market as the second-largest shareholder, with the strategic purpose of creating business synergies. However, as the second-largest shareholder, the amount of influence Vodafone had over its investments was limited. Therefore, Vodafone decided to sell back its stake in Belgacom Mobile to Belgacom and its stake in Swisscom Mobile to Swisscom.

An MNO may adopt multiple internationalization strategies, and therefore may appear in several of the groups in Fig. 1. For example, Vodafone can be classified simultaneously in group I, group II and group IV. Its presence in group I reveals that Vodafone has invested heavily and is the largest shareholder in many European countries. The acquisition of full management control over the investees has allowed Vodafone to achieve its strategic goals of establishing an international presence and creating business synergies. Its presence in group II reveals that it has focused on creating business synergies by forming a strategic alliance for roaming services. Its presence in group IV reveals that Vodafone is currently pursuing a strategy of earning capital gains in the US market, given the limited management control that it has over Verizon Wireless and the non-interoperability between the GSM and CDMA systems.

The final focus of this paper is to derive strategic implications for latecomers who are just about to enter foreign telecommunications markets. Unlike the incumbent major MNOs that preempted foreign markets during the early stages of internationalization, it is possible that latecomers may take a different evolutionary path. That is, they may enter foreign markets initially with the strategic actions described for group III or IV and then finally progress to group I, possibly by way of group II. The first reason for this is that most of the developed markets as well as the deregulated emerging markets are already preempted by the major MNOs; therefore, the window of opportunity for internationalization in those markets is small. The second reason is that direct entry into group I requires enormous investment. Therefore, latecomers may take an incremental investment approach to expand their markets internationally.

References

[1] M.B. Sarkar, S.T. Cavusgil, and P.S. Aulakh, "International Expansion of Telecommunication Carriers," *J. Int'l Business Studies*, Second Quarter, 1999, pp. 361-382.

[2] N.M. Jakopin, "Internationalisation in the Telecommunications Service Industry: Literature Review and Research Agenda," *Telecommunications Policy*, vol. 32, 2008, pp. 531-544.

[3] A.M. Rugman and S. Collinson, "Multinational Enterprises in the New Europe," *Organizational Dynamics*, vol. 34, no. 3, 2005, 258-272.

[4] P. Curwen and J. Whalley, "Measuring Internationalisation in the Mobile Telecommunications Industry," *International Business Review*, vol. 15, 2006, pp. 660-681.

[5] T.J. Gerpott and N.M. Jakopin, "The Degree of Internationalization and the Financial Performance of European Mobile Network Operators," *Telecommunications Policy*, vol. 29, 2005, pp. 635-661.

[6] T.J. Gerpott and N.M. Jakopin, "Firm and Target Country Characteristics as Factors Explaining Wealth Creation from International Expansion Moves of Mobile Network Operators," *Telecommunications Policy*, vol. 31, 2007, pp. 72-92.

[7] T.J. Gerpott and N.M. Jakopin, "Determinants of Mobile Network Operators' Choice of Cross-Border Entry Modes," *Int'l J. Mobile Communications*, vol. 6, no. 2, 2005, pp. 177-198.

[8] G.S. Yip, "Global Strategy...in a World of Nations?" *Sloan Management Review*, vol. 31, no. 1, 1989, pp. 21-41.
[9] J.G. Oh, "Global Strategic Alliances in the Telecommunications Industry," *Telecommunications Policy*, vol. 20, no. 9, 1996, pp. 713-720.
[10] C. Blouin, "The WTO Agreement on Basic Telecommunications: A Reevaluation," *Telecommunications Policy*, vol. 24, no. 2, 2000, pp. 135-142.
[11] S. Sweet, D. Rogerson, and D. Lewin, *Maximising ICT's Contribution to the Economic Growth of Korea*, London, Ovum, 2006.
[12] C. Turner, "International Strategies of Europe's Incumbent Telecommunications Operators," *European Business Review*, vol. 17, no. 4, 2005, p. 340.
[13] R. Yin, *Case Study Research: Design and Methods (3rd ed.)*, Thousand Oaks: California: Sage Publications, Inc., 2003.
[14] R. Stake, "Case Studies," *Handbook of Qualitative Research*, In N. Denzin and Y. Lincoln (eds.),Edward Elgar Publishing Ltd., 2000.
[15] D. Silverman, *Doing Qualitative Research*, London: Sage, 2005.
[16] R. Dineen, Vodafone Group (mobile operator), Ovum Report, 2004.
[17] R. Kashlak, R. Chandran, and C. Di, "Reciprocity in International Business," *Journal of International Business Studies*, vol. 29, no. 2, 1998, pp. 281-304.
[18] P. Ghemawat, "Distance Still Matters: The Hard Reality of Global Expansion," *Harvard Business Review*, vol. 79, no. 8, 2001, 237-147.

Whan-Seon Kim received his BS and MS degrees in electrical engineering from Yonsei University, Seoul, Korea, in 1989, and University of Wisconsin at Madison, USA, in 1992, respectively. He also received his MBA from the University of California at Berkeley, USA, in 1994, and his PhD in management science from Stanford University, USA, in 2002. From 1994 to 1996, he worked at Korea Information Strategy Development Institute (KISDI), Seoul, Korea. He is currently an associate professor with the Business School at Myongji University, Seoul, Korea. His major research interests are in information and communications technology, information and telecommunications policy and economics, digital convergence, and digital ecosystems.

Myeongho Lee is a professor of the Graduate School of Management, KAIST, Seoul, Korea. He received his PhD in economics at Columbia University in 1989. He then worked at KISDI for ten years as a senior research fellow. Since 1999, he has taught at several universities, including ICU, Myongji University, and Yonsei University. His current research interests include the analysis of IT industries and the economics of regulation in telecommunication and broadcasting fields. He serves on the editorial board of Telecommunications Review as well as on the managerial board of the Korea Association for Telecommunication Policy. He has been a member of several advisory committees for the Korean government. He published numerous articles in ETRI Journal, Telecommunications Policy, Telecommunications Review, and Korean Telecommunications Policy Review.

Kyung-Don Kim received his Bachelor's degree in business administration from Sogang University, Seoul, Korea, in 1994, and his Master's degree in business administration from Korea Advanced Institute of Science and Technology (KAIST) Graduate School of Management, Seoul, Korea, in 2001. From 1994 to 1995, he worked at Korea Information Strategy Development Institute (KISDI) as a researcher. He is currently a manager of the Corporate Strategy Team at SK Telecom, the biggest mobile network operator in Korea. His major interests are corporate growth through the Internet and convergence and globalization in the telecommunications industry.