HALLYUWOOD
Korea's Comparative Advantage in the Global Motion Picture Industry

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Abstract
After Hollywood and Bollywood, the recent success of the Korean motion picture industry has been described as the rise of "Hallyuwood," suggesting that Korea has become the third pillar of the global motion picture industry. In order to explain the emergence of Hallyuwood, this paper uses a global value chain (GVC) approach and highlights some of the economic determinants in the internationalization of the Korean movie industry. Using input-output data and firm-level information, the paper first analyzes the position of Korea in the motion picture GVC and assesses the ways in which the movie production has become more global. The results indicate that Korea is the country with the strongest comparative advantage in the motion picture value chain. The paper then discusses different aspects of the internationalization of the Korean motion picture industry, in particular: the role of co-production and foreign partners, the concentration and vertical integration of the industry, and the creation of a global brand. Finally, the paper looks at the main challenges the Korean industry will face if it desires to further expand and remain competitive, discussing government policies and the impact of the rise of China on Korea's movie industry. Overall, the paper emphasizes that while typically national, cultural products can also benefit from global business strategies.

Keywords
comparative advantage; cultural products; global value chain; Hallyu; Korean wave; motion picture; movie industry

About the Author
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Korea is a small country compared to either the United States or India, but it exports movies to Asia, and increasingly, the rest of the world. The Korean "wave" (or *hallyu* in Korean) refers to the rising popularity of Korean cultural products, first in China in the 1990s and then more globally. The Korean wave was initially associated with TV dramas and movies, but it expanded to include music (K-pop), video games, and animation (Jin 13). If the US movie industry is famously known as Hollywood, and its Indian counterpart as Bollywood, CNN reporters introduced in 2010 the expression *Hallyuwood* to refer to the emerging popularity of the Korean motion picture industry.

There are several explanations for the success of Korean movies and Korean firms in the international movie industry, with the talent of Korean directors, actors, and technicians certainly being a key factor worth considering. Scholars have also explored other cultural determinants, such as the popularity of Korean culture in East Asia (Huang 3), and the successful blending of Korea's local culture with global entertainment (Shim 25). This paper aims to look at economic determinants, or more specifically, the role of global value chains (GVCs) and the internationalization of the movie industry's production process, and analyse how they have contributed to the rise of Hallyuwood. Before the Korean wave, there was already a cinema of quality and a substantial production of movies in the country (Yecies and Shim, "Contemporary Korean Cinema" 3). What has changed over the years is the increasing globalization of the Korean movie industry.

The contribution of the paper is twofold. First, by introducing a GVC approach, it provides new data on Korea's comparative advantage in the motion picture industry, which provides empirical support to the claim that Korea has become one of the main pillars of the global movie industry. While the success of Korea in exporting movies is obvious, characterizing its comparative advantage and providing meaningful comparisons with other countries is a more challenging task, as Korea still produces fewer movies than larger countries such as the United States, India, China, or Japan. Second, by revisiting the existing literature on the economic determinants of this particular Korean success, this paper highlights the role of global business strategies in developing cultural industries. Specifically, it focuses on the internationalization of Korean movies and their integration into GVCs. A review of a broader set of determinants for Korea's success in the movie industry can be found in Parc and Moon (127). The role of business strategies in explaining the success of Korean cultural products abroad has also been explored in other sectors, such as the music industry (Messerlin and Shin 422).

The paper is organized as follows. Part 1 analyzes the position of Korea in the global movie industry by first looking at traditional metrics, and then by introducing a GVC approach that reveals Korea's strong comparative advantage.

This section also provides information on the internationalization of the Korean motion picture industry. Part 2 further investigates the role of global business strategies and the internationalization of production by discussing the role of co-production and foreign partners, the role of concentration and vertical integration, as well as the creation of a global brand. Part 3 deals with the current challenges the Korean motion picture industry is facing, and whether its comparative advantage is sustainable. Part 4 presents the paper's conclusion.

KOREA IN THE GLOBAL MOVIE INDUSTRY

1. Traditional Metrics

According to the Korean Film Council (KOFIC), 494 Korean films were released in 2017. This places Korea in the top 10 countries that produce the most number of films annually (ranked 8th in 2015). Comparatively, it is quite behind India, Nigeria, and the United States (Figure 1), but is in the same range as France and the United Kingdom. In East Asia, it lags behind China and Japan.[1]

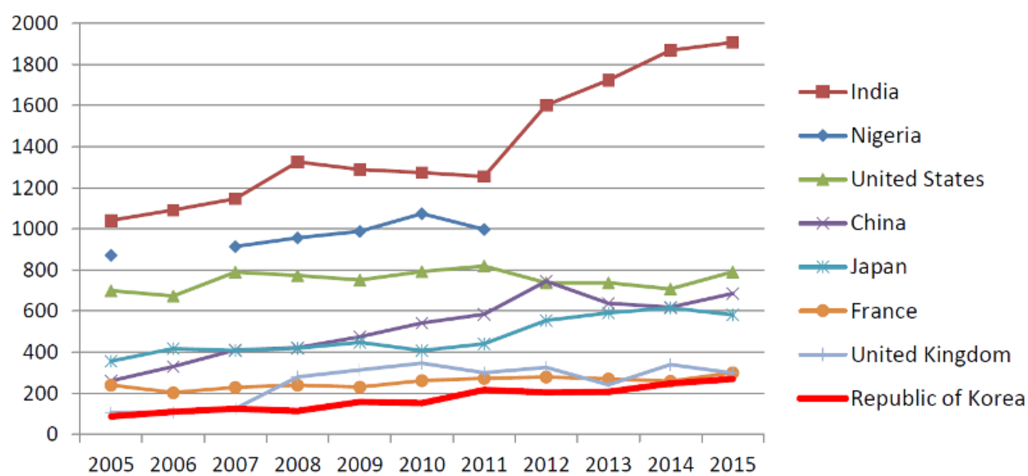

Fig. 1. Number of national feature films produced by country, 2005-2015

Source: UNESCO Institute for Statistics.

However, the number of films produced does not accurately account for the economic importance of the movie industry within and across countries. For example, Nigeria is the second largest film producer in the world with about 1,000 movies produced annually. However, most Nigerian movies are completed in less than a month and with a budget between US$ 25,000 and 70,000 (Omanufeme 30). The same observation also holds true for India, where a high number of films are produced with, on average, low budgets. This statement is not a prejudgment regarding the quality of these countries' movies, but from an economic point of view, the turnover of each industry might be a better metric of comparison across countries.

The turnover includes revenues generated by film production, distribution, and exhibition. In other words, turnover is based on the output of all firms identified in each country as belonging to the movie industry. Exports, domestic sales, and the capacity of companies to produce, distribute, or exhibit foreign films are included in turnover. Moreover, it is not limited to domestic movies. The focus of the term lies in whether companies are established in the domestic economy. Since we are dealing with the concept of output (and not value-added), the value of intermediate input used by these companies is also included. As such, the turnover provides information on the whole contribution of the movie industry to the output of a country. For a more meaningful comparison across countries, turnover can be divided by population, as shown in Figure 2, which looks at the turnover per capita.

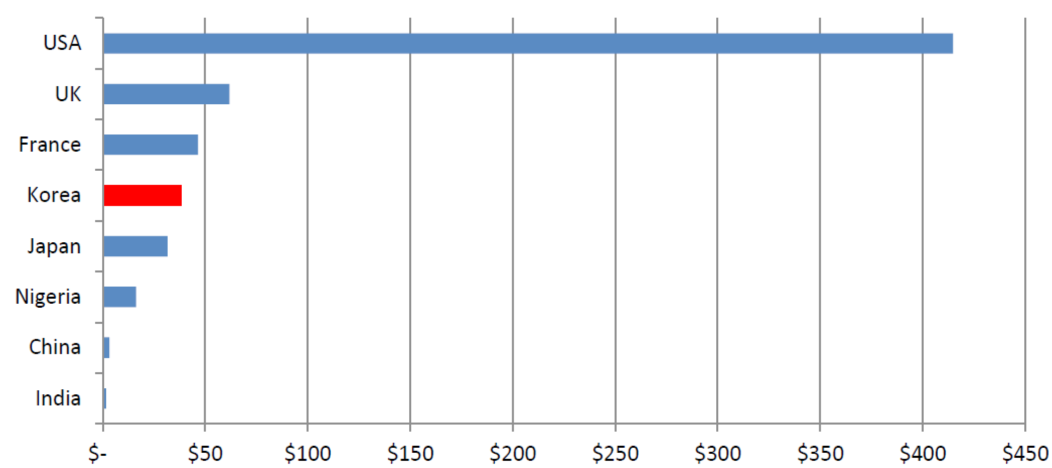

Fig. 2. Turnover per capita of the motion picture industry in US$, 2016

Source: Author's estimates based on Eurostat, INSEE, IMF, KOFIC, MPAA, PHD CCI, and World Bank.

The ranking of countries presented in Figure 2 is quite different from that in Figure 1. While Hollywood produces fewer movies as compared to Bollywood, the income they generate is much higher. Not only do movies have a higher budget (two-thirds of US movies produced in 2016 have a budget above US$ 1 million, and 15% have a budget above US$ 15 million),[2] but they also generate a higher box office revenue worldwide and accumulate additional income through the video and home entertainment market. In comparison, movies produced in India, China, or Nigeria generate lower revenues. These countries have smaller audiences due to constraints in their distribution (for example, India has one of the lowest number of screens per million inhabitants),[3] and in the context of developing economies where intellectual property rights are less enforced, viewers pay less (illegal copies). Moreover, India and China have a population of over 1 billion inhabitants, which decreases the turnover per capita.

Figure 2 highlights the economic strength of the Korean movie industry. With about 38 dollars per capita of turnover, Korea has the fourth highest income in the global industry, only behind the US, the UK, and France. It is also worth noting that Korea has a box office similar in size to the UK's and France's (about US$ 1.5 billion in 2016) and produces a similar number of movies, as seen in Figure 1. Thus, the turnover of the Korean movie industry is quite impressive, especially when compared to Japan's, a country which enjoys a higher GDP per capita and more mature markets.

Nevertheless, turnover per capita is still not a reliable indicator of comparative advantage. In particular, it does not account for export capacity, which is what defines comparative advantage in economic terms.[4] However, measuring exports for the motion picture industry is difficult. First, trade data is split between goods and services. When a movie is exported, it is categorized as a good called "cinematographic film," and yet this classification does not capture all the income generated by the movie. There is an important discrepancy between official trade statistics and box-office revenues (Hanson and Xiang 205). This category is also slowly becoming obsolete, as movies are now exported through hard drives or other digital methods, and thus can no longer be strictly considered as "films." Additionally, there are also many other services related to the motion picture industry that are part of the export of audio-visual services, and these should be included in the overall assessment of the industry as well. A GVC approach then becomes relevant in light of these concerns.

2. The Motion Picture Global Value Chain

The GVC analysis starts from a final product and describes "the full range of activities that firms and workers perform to bring this product from its conception to its end use" (Gereffi and Fernandez-Stark 7). In the case of a movie, this includes pre-production (initial development of the project, scenario, script, casting, etc.), production (shooting in different locations, management of cast and crew, etc.), post-production (editing, special effects, soundtrack, etc.), and distribution (marketing, advertising, distribution in theaters, DVD/Blu-ray, video on demand, television, etc.). Figure 3 summarizes the production process and Table 1 provides estimates for the share of turnover generated in each stage.

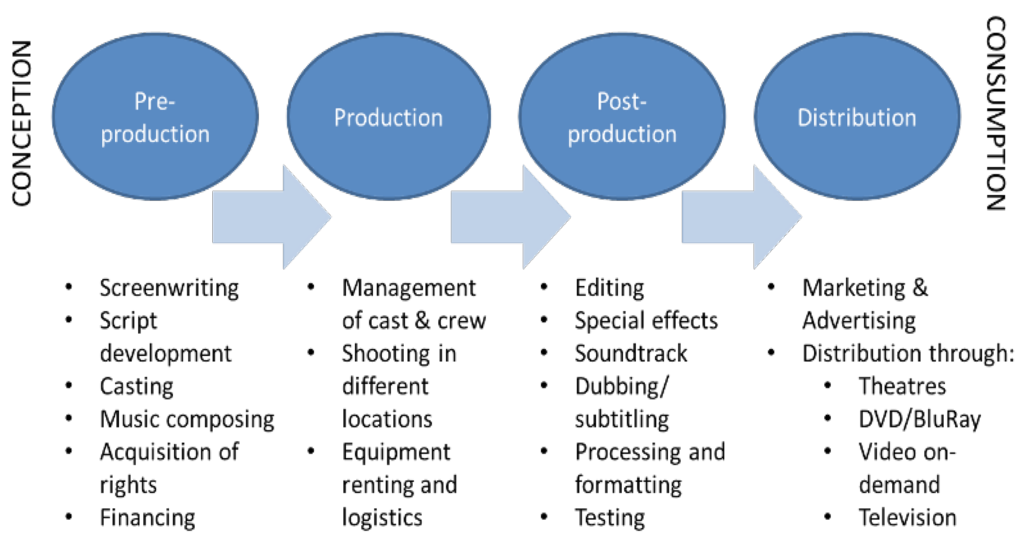

Fig. 3. The motion picture industry value chain

Source: Author's elaboration.

Table 1. Average distribution of turnover along the value chain in Korea (2015)

	Pre-production	Production	Post-production	Distribution	
Overall share of turnover	16%	5%	3%	76%	
Detailed share of turnover				Distributor	18%
				Marketing & advertising	4%
				Theatres screening	46%
				DVD/Blu-ray	0.3%
				On-line sales	3%
				VOD & streaming	5%

Source: Based on data from KOCCA.

To produce a single movie, many firms and individuals are involved, as seen in the long list of credits at the end of the film. In addition, production is often an international effort (giving justice to the name *global* value chain). Movies with a large budget are generally co-produced by many companies belonging to different countries. Firms from all over the world can then be associated with particular stages of the value chain, especially if the shooting takes place in different locations, or if the movie requires technical expertise involving specialized foreign firms (e.g., visual effects). Lastly, marketing, advertising, and distribution must be done in all consumer markets, and distributors are likely to be local firms.

As seen in Table 1, most of the turnover generated in the value chain is in the distribution phase. A large share of the movie industry turnover (almost half) goes to theaters and corresponds to revenues measured in box-office figures. However, it is far from being the whole income generated in the value chain. Not only are there other distribution channels, but companies in the pre-production, production, and post-production phase also generate additional turnover (24%).

Turnover should be distinguished from the income received by each participant in the value chain. For example, ticket sales are gross figures that include different costs incurred by theaters, including the remuneration of the distributor and producer. Money is collected in the distribution phase but returns to the producer or author of the movie. In any value chain, there is a "lead firm" that controls the production and has the power to organize it. In the case of the movie industry, this "lead firm" tends to be the producer or the studio.

By using a world input-output table (WIOT), it is possible to look at the whole value chain and to track the origin of value-added in a final product, i.e., to measure the value added by all the firms across all the countries and industries that have participated in the value chain (Timmer et al., "Fragmentation, Incomes and Jobs" 619). Unfortunately, no such table is disaggregated enough to provide information on the motion picture industry itself. The data covers all audio-visual products (i.e., TV programs and music in addition to movies). Assuming that the international input-output structure is the same across the three types of production (i.e., TV content, music, and movies), Figure 4 provides a decomposition of the global motion picture industry value chain.[5] It is an approximation in the sense that some of the indirect value-added (for example, the input provided by Korean firms to the production of US movies) is estimated based on a country's share in the whole audio-visual industry. However, the direct value-added and the output of the sector reflects the movie industry's only.

Figure 4 provides a decomposition by country of all the income generated by movies in the world, considering all the production stages described in Figure 3 and all the inputs used by the firms involved. Income is therefore different from turnover because this time, the origin of value-added is identified. For example, for any dollar spent by a moviegoer in the world, 47 cents go (on average) to US firms. This value is a combination of the different types of involvement US firms contribute to the GVC. This value can be the income generated by a Hollywood movie screened in Japan, or by a US special effects company working on a French movie, or by the distribution of a Korean movie in the Philippines by a US distributor.

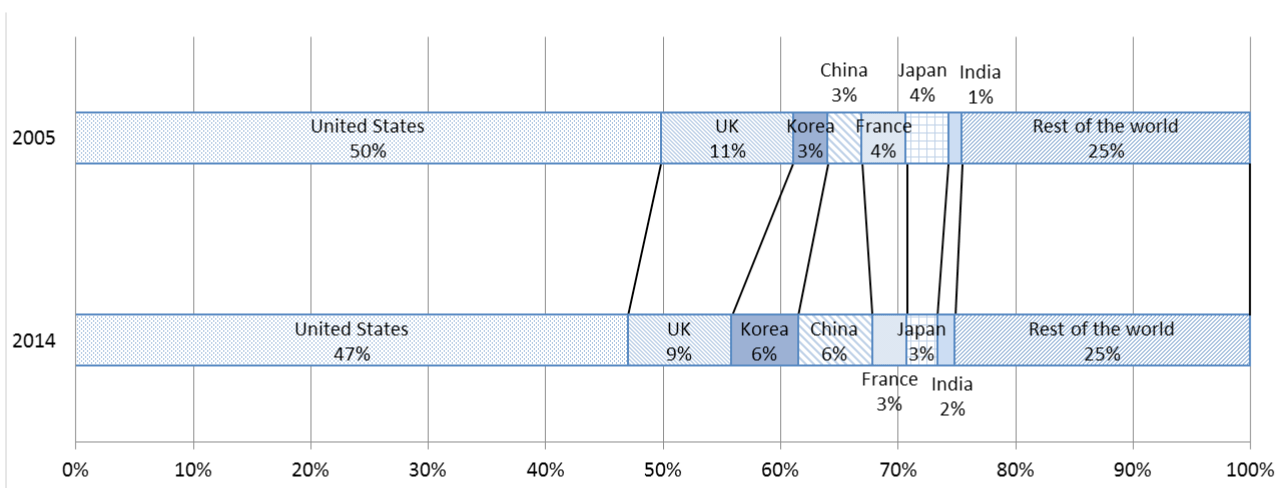

Fig. 4. Decomposition of income in the global movie industry, 2005 and 2014

Source: Author's estimates based on the WIOD database.

It can also be a US firm providing catering services during the shoot of a UK movie in New Zealand, or the renting of equipment in the US for a Chinese movie. All combinations are possible, as long as the value-added is coming from a US firm and the final product is a movie. It also includes domestic activities, such as the production of US movies for US theaters.

The supremacy of Hollywood in the global movie industry is confirmed by the decomposition of the GVC income. The US accounts for almost half of all international income, and this share has only slightly diminished between 2005 and 2014. Worth noting is the fact that the UK is the second country with the highest share of GVC income (which is well above France's share). The reason for this might be that while the UK and French movie industries are of similar size in terms of the production of (domestic) movies, their involvement in the global motion picture industry is not the same. Many UK firms support the production of US movies through co-production or through the provision of studios, as exemplified by the Star Wars and James Bond franchises.

According to the GVC income, Korea is ranked third in the global motion picture industry with an income share of 6%. More importantly, this share has doubled since 2005. It highlights the rapid expansion of the Korean movie industry in the last decade. Only China has a higher growth rate during this period, and it ranked fourth in 2014 (right behind Korea, with a share slightly below 6%). Meanwhile, Japan's share is on the decline (3%). Finally, Figure 4 confirms that despite an increase in its GVC income between 2005 and 2014, the Indian movie industry remains small from an economic point of view. Across the rest of the world (i.e., all the countries not shown in Figure 4), there is no change between 2005 to 2014. This means that if some countries have an emerging movie industry (such as Nigeria), they have yet to expand to the point where they can capture a higher share of the world motion picture income.

3. Korea's Comparative Advantage

Figure 4 shows the absolute advantage some countries have in the motion picture industry. To better approximate the concept of "comparative advantage," one has to juxtapose the GVC income share of each country (which depends on its economic size) with its relative capacity to perform well in the motion picture industry as well as with other businesses. In the context of trade theory, economists rely on the concept of comparative advantage and its empirical assessment through a revealed comparative advantage (RCA) index (Balassa 105). The RCA is generally calculated as the share of a country's exports of a given product in total exports, divided by the share of world exports of this product in total world exports. An index above 1 indicates that the country has a comparative advantage because it exports the product relatively more than other countries.

Following Timmer et al. ("Fragmentation, Incomes and Jobs" 642), this concept can be applied to GVCs by calculating an RCA based on the GVC income. The formula is simply the share of a country in the GVC income of a specific industry (in this case, motion pictures) divided by the share of this country in all GVCs (i.e., all industries, equivalent to world GDP). Such an RCA is calculated for in Figure 5.

The country with the highest RCA in the motion picture GVC is Korea. It is ahead of the US, implying that while the share of the US in the income generated by the motion picture industry is high, this share—relative to the share of US income in other industries—is not as high as its Korean counterpart. With a value of 2, the US still displays a strong comparative advantage, but Korea has a higher one, with a value above 3.

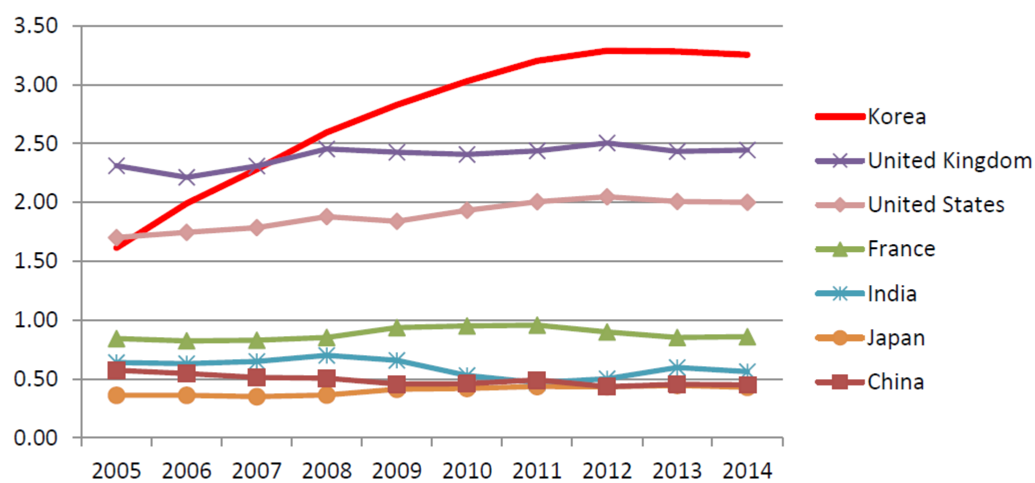

Fig. 5. Revealed comparative advantage in the motion picture GVC, 2005-2014

Source: Author's calculations based on the WIOD database. For example, the RCA for Korea is the share of Korea in the motion picture GVC income (as on Figure 4) divided by the share of Korea in all GVCs (i.e., the share of Korea in world GDP).

Also above the US in terms of comparative advantage in the motion picture industry is the UK, which places second in Figure 5. All other countries have no (revealed) comparative advantage for movies, their RCA all being less than one. Again, it is important to keep in mind the particularities of the GVC approach. France has a value of 0.9 in this graph, which normally would be above 1 if a traditional RCA that does not account for the whole value chain is used. However, France's performance falls, especially in comparison to the UK's, because the GVC income RCA includes the contribution of all input suppliers. The fact that the RCA is an indication of the *relative* performance of an industry also explains why China, despite its growing share in the GVC income of the movie industry, has the lowest RCA in Figure 5, along with Japan. When compared to other industries (where China has performed even better in terms of capturing higher shares of GVC income), the motion picture industry is not the most emblematic of China's rapid growth in recent years.

The evolution of the Korean GVC income RCA is quite impressive over time. As far back as 2005, the Korean motion picture industry already had an RCA above 1, but its acceleration in the past few years has been rapid, especially when looking at trends in other countries where similar variations are much smaller. For an industry to progress at such a pace relative to others like it (which are also growing) indicates quite a profound structural transformation. Such a quick-paced development invites a closer look at the exact nature of the Korean success story in the movie industry, since the GVC approach considers all the other contributions of Korean firms to the global motion picture industry. Figure 5 presents not only the success of the production and export of Korean movies, but also suggests a less documented but no less important increase in the participation of Korean companies in the production and distribution of foreign motion pictures.

4. Internationalization of the Korean Movie Industry

Lastly, the GVC framework can also be used to assess the internationalization of movie productions in each country. While the GVC income on Figure 4 shows the contribution of each country to all movies produced across the world, Figure 6 exhibits all foreign contributions to movies produced in each country, i.e., all the inputs provided by foreign firms to domestic ones produced by the movie industry.

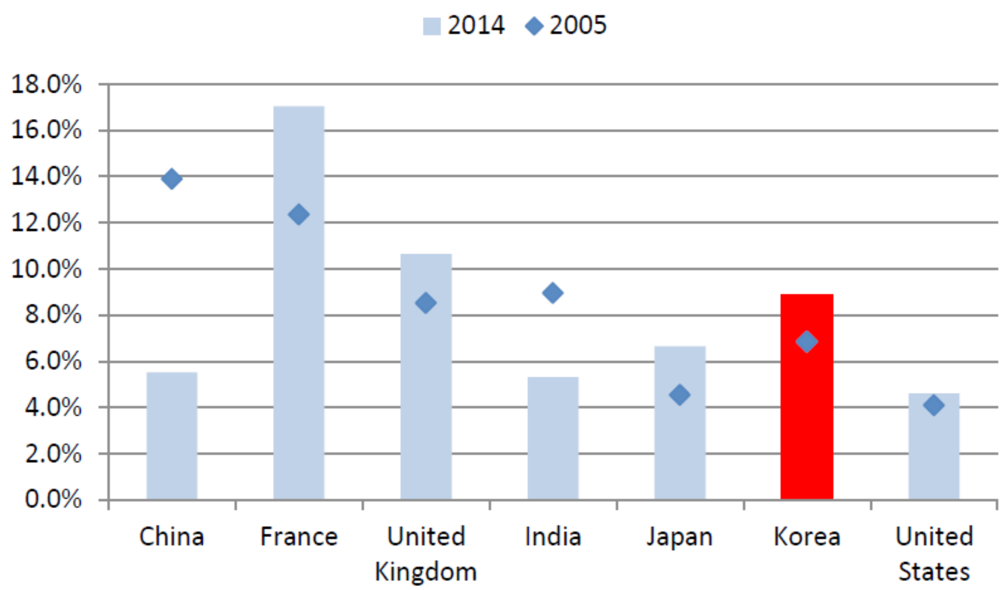

Fig. 6. Foreign value-added in the GVC income of each country, motion picture industry, 2014 and 2005

Source: Author's calculations based on the WIOD database.

As a consequence of the European Union, there is a high foreign contribution to movies produced in France or the United Kingdom or to motion picture services delivered by French and UK firms. In the above calculations, inputs coming from other EU countries are measured as part of the "foreign value-added." Therefore, while Korea has a lower share of foreign value-added in the demand for its movies and other related services, it is still considered a high share, well above other important movie producers such as China, India, Japan, or the United States. Moreover, this share has increased between 2005 to 2014, highlighting the internationalization of the Korean motion picture industry. Japan, and to a lesser extent the United States, are also internationalizing. In contrast, China and India show a reverse trajectory; both countries are trying to reduce the contribution of foreign firms to their motion picture industries. In the case of China, the decrease is very prominent, which can be related to recent policies aimed at developing a domestic industry.

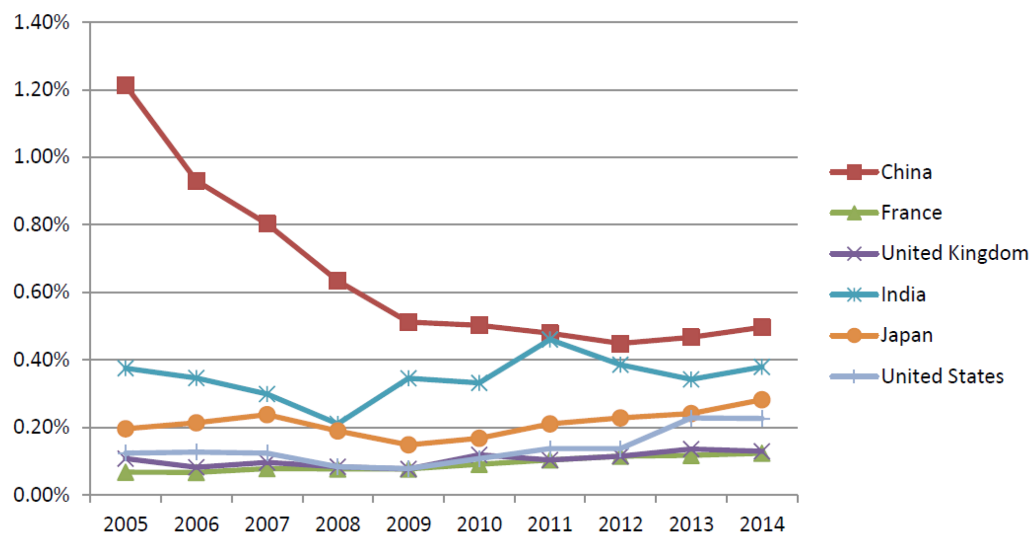

Fig. 7. Korean value-added in final output of each country's motion picture industry, 2005-2014

Source: Author's calculations based on the WIOD database.

Figure 6 exhibits the amount of foreign input in each country, but we can also look at how Korean firms participate as input suppliers in the industries of other nations. Figure 7 focuses on Korea and estimates the share of Korean inputs in the final demand of the motion picture industry in each other country. These shares are by definition small (the Korean contribution is a sub-set of the foreign value-added measured in Figure 6) and one should be cautious with the data, as we use input shares estimated for the whole audio-visual sector. Furthermore, international input-output tables provide coefficients that are not directly observable in the bilateral dimension, and therefore have to be estimated. Figure 7 is nonetheless interesting because it helps identify trends that confirm anecdotal evidence regarding the internationalization of the Korean movie industry.

Korean firms play an increasing role in the movie industries of India, the US, and Japan. In contrast, their involvement in the Chinese film industry has been decreasing since 2005, in part due to political reasons. There is a slight increase in the Korean value-added in the final output of French and British movie industries, but Korean shares are also lower in these two countries.

The rest of the paper reviews the different factors that can account for both the success of Korea in the global motion picture industry and the internationalization observed in relation to business strategies in the GVC.

GLOBAL BUSINESS STRATEGIES AS A DETERMINANT OF COMPARATIVE ADVANTAGE

Comparative advantage is often understood as the positive consequence of local characteristics such as climate, factor endowments, or technology. Some countries are better at producing specific goods because they have the available skills, capital, market size, or knowledge. However, this concept changes when used in the world of GVCs and when looking at the dynamic of comparative advantage. Knowledge, skills, and even market size can be borrowed from other countries by working with global firms and by being part of international production networks. Comparative advantage is now, to some extent, denationalized (Baldwin 56).

The observation in the case of manufacturing, wherein the place where a good is conceived is different from the place where the good is manufactured and sold, holds true for cultural products as well. The concept of cultural hybridization finds in GVCs its economic equivalent. Movies can still have all the characteristics of a local culture but be the result of an international process of production. The objective in this section is to focus on business strategies in relation to GVCs (i.e., the roles and connections of global markets and global firms) as a source of Korea's comparative advantage in the motion picture industry.[6]

1. The Role of Co-Production and Foreign Partners

International co-operation in the motion picture industry often takes the form of co-production, wherein companies from different countries decide to work together to produce a movie. This is because co-production has several advantages. First, it allows to pool resources and helps with the movie's financing. Second, it eases the distribution of the movie in the countries involved, and possibly facilitates access to any government support (this is generally restricted to domestic production). Finally, co-production is an efficient way to learn from foreign companies, to gain access to larger pools of talent, and to develop the capacity of participating firms (Shichijo 4).

To encourage or facilitate co-productions, governments often sign co-production agreements. Korea has such agreements in place with France (2006), New Zealand (2008 and 2015), the European Union (2011), Australia (2014), China (2015), and India (2015). However, there is no need to have a co-production agreement for producers from different countries to collaborate. The movie *Seven Swords* (2005) is an interesting example of such a scenario, as it was co-produced by companies from Korea, China, Hong Kong, and Japan even before some members had signed the co-production agreement (China), and in the case of other members, without having an official agreement at all (Japan and Hong Kong). Yecies (772) highlights that Chinese-Korean connections in the movie industry predate the co-production agreement and have taken many forms.

Financing from foreign countries is possible in the absence of co-production. For example, the Hong Kong-Asia Film Financing Forum (HAF) has supported the production of several Korean movies, such as *Untold Scandal* (2003), a Joseon dynasty version of the 18th century French novel *Les Liaisons Dangereuses*, and more recently *Kundo* (2014), a box office hit that was produced by Moonlight Film and Showbox.

Aside from financing, foreign partners can also participate in any part of the value chain. For example, Yecies and Shim (*Changing Face of Korean Cinema* 157) describe how Zip Cinema, a company founded by Eugene Lee in 2006, was inspired by the model of international firms such as Working Title Films and Focus Features. Zip Cinema does not only illustrate the concept of international funding, but also demonstrates the ways in which international plots or technicians can help create successful Korean movies. Eugene Lee was one of the first producers to sign a management contract with the US-based talent agency Creative Artists Agency (CAA).

Foreign participation in the Korean movie industry can also take the form of foreign ownership in local production companies. For example, Spackman Entertainment Group, a company based in Singapore and founded by a Hong Kong businessman in 2011, owns several successful Korean production companies, including the aforementioned Zip Cinema, Novus Mediacorp, Noon Pictures, and Studio Take. The group has produced some of the most successful Korean movies in the last few years. In particular, *Golden Slumber* (released in the beginning of 2018) is an interesting example of how internationalized the Korean movie industry has become. The film is based on a Japanese novel written by Isaka Kotaro in 2007, and an earlier movie adaptation was shot in Japan in 2010. While it was co-produced with the Korean company CJ Entertainment, the movie was only distributed locally. In 2017, Zip Cinema produced a remake, with a budget estimated at US$ 9.6 million. This time, the film was distributed not only in Korea (reaching third place in the Box Office, earning US$ 10.2 million in the first two weeks) but also in Australia, Brunei, Cambodia, Hong Kong, India, Malaysia, New Zealand, the Philippines, Singapore, Taiwan, Thailand, and the United States.[7] In 2017, the Spackman Entertainment Group also provided the seed funding for The Makers Studio, a Korean film production start-up.

In recent years, online platforms have played an increasingly important role in providing worldwide access to Korean movies. For example, in 2016 Netflix bought the rights to *Pandora*, while Amazon Studios bought the ones for *The Handmaiden*. The movie *Okja,* directed by Bong Joon-Ho (which competed for the *Palme d'Or* at the Cannes Film Festival in 2017) was both co-produced by Netflix and distributed solely through the online platform.

There are many more examples of international involvement in the Korean movie industry. This anecdotal evidence complements the aggregate data from Section 1 and suggests that Korean companies were successful in creating a network across the world that helped them improve the quality of their movies, allowed them access to foreign capital and investment, and expanded their audience base for Korean movies.

2. Concentration and Vertical Integration in the Korean Motion Picture Industry

The Korean motion picture industry is relatively concentrated, as shown by the market shares of the four main Korean companies that distribute movies in Korea (Table 2). These companies are CJ E&M, Showbox, Lotte Entertainment, and Next Entertainment World. However, the landscape of Korean movie distributors is always changing through mergers, foreign investment, and the emergence of new players, thus preserving a reasonable level of competition in the market. Furthermore, foreign companies—particularly Hollywood studios—maintain significant market shares in terms of distribution (though this is mostly for foreign films).

As conglomerates play an important role in the Korean economy (the *chaebols*), it is tempting to see how the Korean economic model is applied to the movie industry. However, concentration in the motion picture industry is not specific to Korea. Walt Disney Studios, founded in 1923, has grown through a series of mergers and acquisitions. The company now owns Pixar, Lucasfilm Ltd., Marvel Studios, and 21st Century Fox, with a market share estimated at 27% of the global movie industry.[8]

Table 2. Market shares for the distribution of movies in Korea by sales, 2012 and 2017

	2012	2017
Korean companies		
CJ E&M	26.7%	15.0%
Lotte Entertainment	12.0%	11.4%
Showbox	12.6%	10.6%
Next World Entertainment	11.8%	7.0%
Other Korean	5.5%	14.3%
Foreign companies		
Walt Disney Company	-	9.4%
Universal Pictures	4.1%	9.1%
Warner Bros	7.0%	6.9%
20th Century Fox	3.8%	6.5%
Sony Pictures	13.1%	4.4%
Other foreign	3.4%	5.4%
Total	100.0%	100.0%

Source: Author's estimates based on KOFIC data. Korean and foreign companies are distinguished based on ownership and not the movies distributed.

Moreover, concentration goes hand in hand with vertical integration and the creation of media conglomerates that also expand horizontally across different types of media and related entertainment activities. Walt Disney Studios is thus part of The Walt Disney Company, with activities not only in the movie industry, but in television and amusement parks as well. It is the same for all major media groups involved in movie production, such as Comcast (owner of Universal Pictures), Sony (Sony Pictures and Columbia Pictures), Time Warner (Warner Bros.), Viacom (Paramount), and Vivendi (StudioCanal).

While the concentration of the media industry is often criticized in terms of its impact on competition, cultural diversity, and the freedom and quality of its information, it also suggests a strong economic rationale (Küng 185). First, it allows for economies of scale and scope, which in the case of the movie industry, comes in the form of larger budgets for production. This guarantees, to a certain extent, the engagement of a large audience. Big firms can also diversify their productions and invest in riskier projects when they have a large portfolio of movies, with some profitable enough to cover losses on others. Second, concentration in the movie industry is also about complementarity and convergence across different types of media in the digital age. Movies generate income not only in theaters, but increasingly, on television and the internet. Only large media conglomerates can compete in this new environment where, due to network effects and two-sided markets, concentration and innovation are in collaboration.

Within the movie industry, vertical integration is not a new strategy and is the model that has been followed by Hollywood studios since the 1930s (Caves 99). It is part of the central producer system, wherein a producer (or a team of producers) oversees all the different stages of production in the value chain described in Figure 3, from the conception of the project to the distribution of the movie (Lampel 43).

Along the value chain, movies involve many collaborations between different types of firms during the pre-production, production, post-production, and distribution phases. Vertical integration reduces transaction costs and facilitates operations along the value chain where buyers and suppliers of movie services may have divergent interests. By controlling the whole value chain, companies avoid paying excessive prices for both upstream and downstream services. Controlling distribution is also key, as a movie's success depends on access to screens, particularly when there are screen quotas or other government interventions that reduce their availability (Doyle 178). Corporate links with TV channels or online platforms also increase the potential earnings of movies produced by conglomerates.

In Korea, the traditional chaebols such as Samsung, Daewoo, or Hyundai are only marginally involved in the movie industry.[9] All three closed their movie divisions in the aftermath of the 1997 financial crisis. As a consequence, new companies have emerged that can be regarded as the '*chaebols*' of the movie industry, all of which are the products of younger and more contemporary histories. For example, CJ E&M is the result of the merger between CJ Entertainment, M-net media, and On Media. CJ Entertainment was created in 1995. Showbox was created in 1996 (as Media Flex Co.) and belongs to a confectionary company (Orion Corporation). Lotte Entertainment is a subsidiary of the Japanese-Korean conglomerate Lotte Group, and was created only in 2003. Next Entertainment World was created in 2008 by a former president of Showbox.

As owners of theaters, both the CJ and Lotte Groups follow a strategy of vertical integration. This was also the case with Showbox when the Megabox theaters were still part of the Orion group. Mergers and acquisitions are still on-going in the Korean media industry, and with the digital economy and the expansion of Korean movie companies outside Korea, the landscape is still open to change. Nonetheless, large vertically integrated companies are part of the Korean strategy for building a strong comparative advantage in the motion picture industry.

3. The Creation of a Global Brand

The third aspect of the internationalization of Korean movies is in relation to the rise of the Korean wave as a global brand. The quality of Korean movies can explain their success abroad. However, the concept of brand means that the interest of viewers starts before assessing the quality of movies by looking at the movie's plot or reviews. In other words, a brand is the familiarity of non-Korean audiences with the style of Korean movies, and which predisposes them to watch a movie because of this deemed Korean quality.

As previously mentioned, several authors regard the creation of cultural "hybrids" as the origin of the success of Korean movies in both a positive (Shim 25) and negative way (Lee 46). Quite emblematic of this trend are the movies *Shiri* (1999) and *Joint Security Area* (2000), two films released by CJ Entertainment in the late 1990s and regarded as the two earliest Korean blockbusters. They can be described as "Hollywood blockbusters" because of their budget (larger than any Korean movie before them) and the visual style of their action scenes, stunts, and special effects. At the same time, the two movies are about the relationship between North and South Korea (with North Korean soldiers featuring in both plots) and share other cultural traits that make them identifiably Korean and not just generic Hollywood movies.

Not in contradiction with the cultural analysis, there was also a business strategy behind these movies. The blockbuster strategy is about making big bets. By investing a large amount of money in a movie, the objective is to have the best talents, movie stars, the highest technical standards, and the best special effects available to impress viewers. Additionally, a large amount of money is dedicated to the marketing and distribution of the movie in many theaters, to ensure a large viewership and consequently, a high return on the initial investment (Elberse 27).

However, it is not enough to just imitate Hollywood movies. On one hand, while we can say that Korean films have followed the blockbuster model, we can also say that these movies have also displayed genuine Korean traits. The strategy is therefore more comparable with the creation of a global brand. A global brand has to cater to the tastes of consumers in different countries, which consequently causes it to lose some of its local characteristics, but it also needs to have its own identity to differentiate it from its competitors. Therefore, Korean movies should still be, to some extent, recognizably Korean. Cultural hybridization then makes perfect sense from a business perspective. The strategy is also complemented by a star system, which is not new in the movie industry. The star system refers to the promotion of Korean movies abroad through recognizable celebrities from earlier famous dramas or movies (An and Lee 129).

Whether the strategy was deliberate or the result of trial and error is difficult to say. Over the years, Korean movies have explored many different topics and genres, and successful movies were not always considered typical blockbusters. While companies have pushed to make movies that attract the interests of larger and larger audiences, directors have also found, within the constraints of the new Korean cinema, ways to balance artistic quality with business imperatives (Paquet 114). The Korean global brand in the movie industry also reflects the works of these directors.

CHALLENGES AHEAD

Is the position of Korea sustainable? There are strong fundamentals in the recent success of Hallyuwood that suggest that Korea can maintain its current comparative advantage. The "ecosystem" of firms, networks, and talents, alongside the growing presence of Korea in the motion picture GVC, ensure that the industry will not vanish in the next few years. On the contrary, Korea should even see an increase in its exports in the near future, as its companies start to explore new markets in Asia and beyond.

However, the future of the Korean movie industry is dependent on two important factors, the first being the role played by government policies. In recent years, Korea has relied on two types of policies to support its movie industry: that of screen quotas and subsidies (Parc 619). According to Kwon and Kim, the role of the government is key in explaining the Korean wave, and is comparable to the industrial policies that were used to develop manufacturing industries (423). In contrast, Messerlin and Parc argue that subsidies were not significant before 2007, and only came into play after the multiple successes of Korean movies abroad (62). While the government may have played a role in terms of channelling resources to a booming movie industry (Paquet 75), it should be noted that the companies that started the Korean wave were private investors operating separately from the government, and were not part of any national plan to develop the movie industry. The fact that the process was driven by businesses was crucial for the internationalization of the industry and for working with foreign partners.

From the point of view of GVCs, the most positive aspect of government intervention in the movie industry does not lie in protectionist schemes, such as screen quotas, but in the creation of policies that help establish both a conducive business environment and which open the Korean economy to foreign players, such as in the case of regional trade agreements. Other important policies are those related to the education and training of skilled and talented workers who contribute to the creative industry. Such policies should be preserved for the Korean movie industry to continue to thrive, especially in the context of rapid technological change in progressively digitalizing economies. The movie industry needs to constantly adjust and restructure.

The second important factor that will shape the future of the Korean motion picture industry is the development of China's own movie industry. Korea's main economic partner built 27 cinema screens per day in 2016, and is expected to overcome the US in 2018 with the largest box office in the world. This presents both an opportunity and a challenge to Korea. If Korean movies are appealing to Chinese audiences, it is a large market that will allow Korean films to generate higher revenues. However, competition with China will also intensify in terms of production and distribution. China has recently invested in many Korean movies and companies. Through FDI, it is possible for China to be part of the Korean movie industry and vice versa. This implies that a large share of Chinese production can be done with Korean talent, and possibly opens the Chinese market to the entry of Korean movies.

Finally, even if at some point Korea loses part of its comparative advantage in the movie industry, it should be noted that the technical knowledge and human capital accumulated can easily be used in other creative industries. As the world enters the digital age, Hallyuwood offers more opportunities than concerns.

CONCLUDING REMARKS

Beyond the talent of Korean directors and the overstated support of the government, the comparative advantage of Korea in the motion picture industry is underpinned by the use of global business strategies. Through GVC analysis, this paper has provided new evidence regarding the claim that Korea is the country with the strongest comparative advantage in the movie industry, and that this advantage was developed *inter alia* through the internationalization of the industry, vertical integration in the value chain, and the creation of a global brand. While cultural products typically have a national character and are considered emblematic of a specific country, they can nonetheless benefit from international production and GVCs.

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Notes

1. The last year available in the UNESCO database is 2015. According to KOFIC data, there was a significant increase in the number of Korean films produced in 2016 (337) and 2017 (494).
2. Motion Picture Association of America.
3. UNESCO Institute for Statistics.
4. Returning to Ricardo, comparative advantage is the source of gains from trade (146). A country has a comparative advantage when it can produce a good or service at a lower relative opportunity cost as compared to other countries.
5. Using estimates of the output of the motion picture industry in each country, the World Input-Output Tables from the WIOD database (Timmer et al., "Anatomy of the Global Trade Slowdown") are used to calculate a specific GVC income. In this calculation, the input-output coefficients from the industry "Motion picture, video and television program production, sound recording and music publishing activities" (ISIC J59_J60) are applied to estimates of "motion picture" output in order to derive a decomposition of the GVC income in the motion picture industry. Output or turnover for the motion picture industry is sourced from Eurostat (UK), INSEE (France), IMF (estimate for the rest of the world), KOFIC (Korea), MPAA (US and China), and PHD CCI (India). Data are converted into basic prices using WIOD information. The calculation of the GVC income follows Timmer et al. ("Fragmentation, Incomes and Jobs" 624). The value-added contributed by each country in the value chain is obtained in a vector $v = \hat{p}(I - A)^{-1}f$ where $\hat{p}$ is a diagonal matrix with the value-added to output ratios, $(I - A)^{-1}$ is the global Leontief inverse and f is the vector of final demand in the motion picture industry. This methodology can only provide 'rough' estimates as only output is specific to the motion picture industry and the value-added, intermediate consumption and final demand have the same structure as the broader ISIC sector that includes television, sound recording, and music publishing.
6. It is acknowledged that there are other sources of comparative advantage related to factor endowments (the availability of talents, skilled technicians, capital in the Korean economy), demand (the size of the domestic market, preferences of Korean consumers) or infrastructure, technology and institutions.
7. Spackman Entertainment Group.
8. *The Numbers*, www.the-numbers.com.
9. Through minority equity and by participating in boards of directors, the chaebols are never far behind. They can be regarded as playing a role, but they are not the main owners of Korean motion picture companies.

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