How Demand Sophistication (De-)limits Economic Upgrading: Comparing the Film Industries of South Africa and Nigeria (Nollywood)

Helena Barnard [a]; Krista Tuomi [b]

[a] Gordon Institute of Business Science, **University of Pretoria**, Illovo, Johannesburg, South Africa
[b] School of International Service, American University, Washington, DC

Abstract

More sophisticated demand is typically seen as an enabler of economic upgrading. This study questions this linearity and extends demand theory through a case analysis of the film industry in two developing countries. When unsophisticated local demand results in well-matched supply- and demand-side elements, benefits do accrue. Low exposure to technically superior products in Nigeria allowed a fully fledged film value chain to develop, as consumers were willing to support lower quality output. Although the industry is too weak to seriously threaten incumbents from the developed world on the global stage, it has substantial impact in its home country. In contrast, if demand is far more sophisticated than supply, local industry will struggle to respond to broad-based demand signals and will achieve accelerated learning only in niche areas. South Africa has become a niche producer in the global film industry rather than film producer in its own right partly because the widespread demand for Hollywood-quality products could not be met by local supply capabilities.

More sophisticated demand is generally seen as a precursor to more sophisticated product and service offerings. For example, in research on economic upgrading, one of the benefits of international business is typically seen as its ability to provide less developed economic environments with access to the preferences and quality expectations of developed markets (Ozawa, 1992; Wesson, 1994; Blomström *et al.*, 2001; Sachwald, 2001). But globalization is increasingly erasing the gap between the more versus less sophisticated demand of the developed versus developing world, although in terms of supply, differences are likely to remain—there can be a demand for cutting-edge cell phones in even the most remote African village, but virtually never the capacity to produce them there. Thus less developed countries are increasingly likely to have access to products or services that are of significantly higher quality than what can be produced locally.

This paper develops theory about the effects of the increasing imbalance between local supply and local demand by looking at the film industry in less developed countries. Through an exploratory study of two cases, we document two distinct development patterns, each dependent on the size of the gap between the desired and the achievable quality of an offering in a developing country.

In countries where technically advanced foreign films from Hollywood and Europe are regularly watched, for example, in South Africa and Latin America, local consumers have high expectations of the production and narrative quality of films. Local films struggle to find a market as customers are unwilling to support “infant industry” type productions. As a result, these countries struggle to develop a fully fledged local film industry. Even when governments wish to establish a strong local film industry and introduce various policy measures to support it, the presence of a sophisticated foreign offering makes it virtually impossible to realize that goal. However, these countries can become sites of so-called “runaway” productions, as they occupy specialized (and quite sophisticated) niche roles in the global value chain. In contrast, a thriving local film industry exists in countries like India, Nigeria and China where there is limited penetration by technically highly proficient foreign films like those from Hollywood. Because local consumers are receptive to lower quality products, a market exists for domestic film. This allows the entire film value chain to develop—albeit at a low level of sophistication, and without any real challenge to the incumbents. Even in the case of the successful Bollywood industry, Hollywood's engagement with it has been largely limited to forays in financing and distribution (Lorenzen and Taeube, 2008).

Thus the case of film seems to contradict prior work on the benefits of more sophisticated demand. The sophistication of local demand does not encourage broad-based local industrial development—and may even, by some metrics, limit it.
Our first contribution is to the field of international business, where we offer a more critical analysis of the role of demand. Prior research on developing countries tends to view international business as a generally beneficial trigger in improving first the sophistication of demand, which then serves to trigger improvements in production. Where the higher expectations of the international market fail to translate into local production upgrading, the field tends to employ a binary logic to explain such failures, for example, by arguing that local linkages were not formed, or that the absorptive capacity of the local firms was too low. In order to understand the specific activities that evolve around more or less sophisticated local demand, we propose analysing the relationship between international business and local development in terms of integration and adaptation rather than as a binary process (either enabling or retarding local development). The benefits of international business accrue where there is meaningful integration and mutual adaptation between local and foreign capabilities.

Our second contribution is to the emerging literature on creative industries. The paper documents that even in a globally connected creative industry like film, local innovation by developing country firms is possible. However, innovation is facilitated by the extent to which firms are not inserted into a well-developed global value chain. Although the lack of awareness of established industry norms (e.g. about minimum production quality) enables the emergence of innovative branches of the industry, the same lack of awareness—coupled with the typical resource shortages (e.g. of skills and finances) of developing countries—results in the local innovation being of too low a quality to pose a credible challenge to the incumbents, at least in the shorter term.

Prior Work

The role of demand has a long history in research on innovation and economic development. After Schmookler (1966) demonstrated the strong correlation between innovation and growing demand in an industry, a large number of subsequent studies appeared. These studies interpret demand as the single most important factor in the quest for new and better products. In their review of the role of demand in innovation, Mowery and Rosenberg (1982) critique most of the research from the 1960s and 1970s for its overly optimistic view of the role of demand. They highlight two key considerations in their critique. First, they find that the definition of market demand used by most researchers is vague and inconsistent. They argue that it matters whether demand changes in response to changes brought about within the economic unit (e.g. changes in production technology), or due to external factors (e.g. changes in market tastes). They also caution against conflating demand with "human needs", and propose a definition:

Demand, as expressed in and mediated through the marketplace, is a precise concept, denoting a systematic relationship between prices and quantities, one devolving from consumer preferences and incomes. (Mowery and Rosenberg, 1982: 129)
Second, they debunk the hypothesis of a linear relationship between demand and innovation, pointing out that most innovation is also supported by a "complex and diverse set of supply-side mechanisms". A number of researchers have subsequently investigated the interrelationships between what is commonly termed "demand-pull" and "discovery-push" (Walsh, 1984; Cantwell and Fai, 1999) and the consensus today is that innovation results from firms integrating both demand-pull and discovery-push factors. Indeed, the most recent work on demand factors in innovation and learning—that of "user innovation" (Baldwin *et al.*, 2006; Von Hippel, 2007) studies the virtually complete integration of the demand and supply sides of innovation.

Some notion of integration, although not clearly articulated, has long been at the heart of claims that international business can help facilitate learning and upgrading. The founding work in the field (Dunning, 1958) documents how US investment in the post-war UK manufacturing sector exposed UK firms to the more demanding US customers. This stimulated UK firms to upgrade their own offering in order to meet the needs of their new customers. More recent studies (Kim, 1998; Sachwald, 2001; Athreye, 2005) show that contact with a more sophisticated market challenges perceptions about what is an acceptable offering, instigating an improvement in the product offering by local firms.

In work on economic development and upgrading, the connection between foreign and local parties has been extensively researched under the rubric of "local linkages", and numerous studies focus on these linkages in less developed local economies (Brannon *et al.*, 1994; Alfaro and Rodríguez-Clare, 2004; Chen *et al.*, 2004). Research using the concept of a "technology gap" (e.g. Fagerberg and Verspagen, 2002) and "absorptive capacity" (Sachwald, 2001) also documents the role of increasingly similar capacity bases as drivers of development. Lall and Latsch (2001) document a threshold effect: for developing countries with a degree of pre-existing technological competence, liberalization was beneficial, but for less competent countries, liberalization (and thus the unrestricted entry of more competent firms) decimated their local capacity base. Their analysis not only suggests that there should be some match between the capability bases of the local and foreign partners, but moreover implies that the match functions in a binary fashion: a meaningful connection between the partners of more and less developed countries either exists or is absent.

Integration is more complex than “linking”. First, it is not a binary construct. Integration is rarely an “all or nothing” process, often taking place in a partial manner. Second, in the case of integration, co-development and mutual adaptation serve as important pre-requisites to the eventual merging of different elements of the innovation and learning process into a new offering. Related, it is a central tenet of work on integration that all parties are active participants (Leonard-Barton and Sinha, 1993; Iansiti, 1998). In contrast, there has long been a tendency to regard developing country firms as relatively passive partners in their upgrading. Commonly used terms like “spillovers” and “technology transfer” have the connotation that there is a focal source of new knowledge and capabilities, and that the main role of the less developed partner is to (more or less effectively) make use of that knowledge, a connotation that is not always challenged in empirical work.

To enable meaningful learning and innovation, it is necessary to find points of connection in the capabilities of different partners, irrespective of where partners are in terms of their levels of development. Innovation scholars who primarily research innovation in the developed world also emphasize the importance of a match between modes of learning and firms' level of prior capabilities when they comment on learning in a developing country context (e.g. Leonard-Barton, 1995; Teece, 2000): firms' learning will initially be through relatively simple, and as they evolve, more complex learning activities.

Researchers have long argued that the efforts needed to imitate are comparable to the efforts needed to innovate (Teece, 1977; Nelson, 1993) and recent empirical work in a developing country context demonstrates clearly the importance of firms' own efforts (Marin and Bell, 2006). Whether firms function at the technological frontier or not, learning and innovation take place to the extent that firms succeed in integrating the “demand-pull” and “discovery-push” factors in their environment.

The emphasis on matched capabilities carries a tension: there is normally some degree of mismatch between the capabilities of firms in developing countries and the capabilities of their foreign partners. Foreign firms enhance upgrading precisely because those firms tend to be more competent and able to challenge local practices and expectations, and thus accelerate the shift to more complex activities. It is therefore more accurate to state that learning takes place best within some “middle ground” where the differences are significant enough for meaningful new knowledge to be introduced, but where the similarity between partners can also facilitate integration. Indeed, work across a variety of contexts in the developed world (Mowery *et al.*, 1998; Rosenkopf and Nerkar, 2001; Miller *et al.*, 2007) finds that the most productive learning occurs within such a middle ground.

In this context, the notion of “sophisticated” demand requires particular attention. Although it is central in work on especially economic upgrading (e.g. Reddy and Zhao, 1990; Dunning *et al.*, 2001), the term is generally not defined. In this study, it is used as the (market-based) counterpart of the (supply-based) concept “frontier” technology (e.g. as used by Hobday, 1995). Both sophisticated demand and frontier technologies are constantly evolving (with the preferences of customers and advances in technology, respectively) but they represent the demand (or supply) that for the moment represents the best available in any context. In this study, more sophisticated demand refers to demand for the technically and narratively highly proficient films of the West, especially Hollywood.

The importance of the interaction between supply and demand factors in the course of innovation is well known in economies. The evidence can be divided into two broad streams. On the one hand, there is substantial evidence that innovation is enabled by sophisticated demand as firms engage with the expectations from their customer base (Leonard-Barton, 1995; Iansiti, 1998). On the other hand, there is evidence that large and sophisticated markets carry the risk of lock-in, as firms focus on servicing those markets and neglect to respond to emerging technology markets (Christensen, 1997). What both streams of research have in common is that the evidence comes from leading firms in developed contexts. If not at the level of the individual firm, at least the industry in a developed country is characterized by the presence of both sophisticated demand and frontier technologies. This raises the question of how the relationship between supply and demand plays out when the focus is on less developed contexts, when neither demand nor supply capabilities can be assumed to be highly developed. This study attempts to address that gap.

Upgrading in the Film Industry of Developing Countries

This study uses a case study design (Yin, 2003) and compares and contrasts the film industry of two African countries, South Africa and Nigeria. The use of a case-based approach is seen as especially useful when a field is still emerging, because it allows for the development of theory (Eisenhardt, 1989). There is still a lack of understanding about the extent to which creative industries are distinct (or not) from more utilitarian industries like ICT (information and communication technology) or automotive, and similarly a limited understanding of how globalization is changing not only patterns of demand, but also the potential avenues for upgrading in developing countries. This study uses the two exploratory cases to develop propositions for subsequent testing.

Evidence for the study was obtained from interviews with producers, from industry associations (e.g. the Cape Film Commission) and from published sources. Various agencies exist in South Africa to support the development of the film industry, and were useful for obtaining data. However, because of the absence of government regulation or a credible industry association in Nigeria, we relied on evidence and estimates from organizations like the World Bank and the *Economist* for the Nigerian data.

South Africa and Nigeria represent the two main economies of Africa, but differ in significant ways. Contrast is often used in grounded theory building as a way of highlighting the mechanisms at work (Glaser and Strauss, 1965), and the two countries under study differ substantially in terms of the demand characteristics highlighted by Mowery and Rosenberg (1982). Nigeria has a very large population (145 million) but a low income—its GDP/capita in 2006 was US$620. In contrast, South Africa has a smaller population (47 million) but a much larger GDP/capita

(US$5,390). Thus it can be expected that South Africa would sell smaller quantities of higher quality—as measured through prices—of a given good or service.
Given the generally greater level of development of the South African economy, it could be expected that South Africa would be best placed to develop a dynamic film industry. However, although South Africa is an important "run-away" destination, that is, foreign site where Hollywood films are produced, it is not a significant producer of domestic feature films. In contrast, "Nollywood" is the third most prolific film industry globally, measured in terms of the number of titles released annually, after the USA and India (Sacchi, 2006; World Bank, 2008).

As far as the choice of film as an industry is concerned, there are two reasons why film is a particularly useful case for examining the role of demand in the evolution of an industry, especially the impact of foreign demand that is increasingly more sophisticated than what local industry can supply. The first reason has to do with how stable the offering is across very different contexts: at least in terms of the narrative structure and production values embedded in a film, it is immaterial whether one is watching a film in Bloemfontein, South Africa or Buenos Aires, Argentina.

Scholars working from a structuralist perspective argue that technology does not exist as a purely physical object. Instead, it is embedded in a social context, and that context profoundly shapes the technology (Barley, 1986; Orlikowski, 1992, 2000). Although not as theoretically sophisticated, the comparable idea of "local adaptation" is a recurring theme in research on developing countries: when a technology makes the transition from one country to another, the different environments transform how the technology works and is used (Lall, 1983; Tolentino, 1993; Kumar, 1996). For researchers, this raises the question of the extent to which, for example, a cell phone in India is truly comparable to a cell phone in Russia. Film is also embedded in a social context and there are likely to be non-trivial differences in the social contexts where film is viewed—it could be watched at home or in movie theatres, and if in theatres, in more or less sophisticated locations, for example, in terms of refreshments offered or pre-booked seating. There could also be some changes to the film itself—it could be dubbed into a local language, or more often, subtitles added.

One important such a difference between the South African and Nigerian film industries is distribution. Film viewing patterns in South Africa are similar to those in the USA: film is distributed in large cinemas before being released on DVD and finally screened on television. In contrast, Nollywood films are not screened in large cinemas, but released almost exclusively on DVD. Screening of Nigerian films on television (via a pan-African South African-based satellite television channel) is a recent and generally viewed as positive development (Aderinokun, 2005). Although there are interesting innovations in terms of distribution, this study emphasizes product innovation. Both narrative conventions and production values are considered, in other words, those elements of a film that would most clearly retain the country of origin identity. By focusing on the (stable) product offering, it is possible to bracket considerations relating to the supply-side, and to focus on demand effects. For example, a precise distinction between (and thus parsing out of the effects of) local and foreign offerings can be made.

The other important reason why film is a particularly appropriate setting for this study is the fact that film is not only an economic activity, but also an expression of cultural identity. Indeed, in recent years where Oscars were awarded to films from less developed countries, they tended to go to films that grappled with current issues in that country, for example, *No Man's Land* (Best Foreign film, 2001) which deals with the war in Bosnia and Herzegovina, *City of God* (nominated for four categories, 2004) that deals with the drug war in Rio de Janeiro, Brazil, *Yesterday* (nominated for Best Foreign film, 2004) on a Zulu woman's struggle with HIV/AIDS, and *Tsotsi* (Best Foreign film, 2005) on the consequences of a violent car hijacking in South Africa. The desire for film to reflect key themes from a country is also often found among policy makers. Thus the British Film Council identified two major weaknesses in the UK film industry: it raised both an economic concern—that UK films were not as popular as Hollywood films—and a cultural and social concern, that the industry failed to reflect British society as a whole (Kerrigan and Özbilgin, 2002). Indeed, because the key differentiating feature of creative industries is “the nonutilitarian nature of their goods” (Lampel *et al.*, 2000: 264) governments tend to focus not only on the economic contribution of a film industry, but also its potential to tell and share “our stories” when deciding on whether the industry deserves support.

These goals are not necessarily mutually reinforcing and from a purely economic perspective, many governments are behaving irrationally in their ongoing support for a weak local industry. This creates an unusual but useful situation in trying to tease out the economic impact of the sophistication of foreign demand: ongoing government support not only provides resources to the local industry, but through its funding priorities also sends a clear signal as to whether government would like to see a fully fledged local industry or not. It is therefore possible to determine whether the absence of certain types of activities is intended or not.

The South African Industry: A Producer of Niche Services to Hollywood

The South African film industry has always had very close ties to the American industry. Schlesinger, the man who in 1913 consolidated production, distribution and exhibition in the South African film industry, arrived in South Africa in 1895 after a decade in New York. He modelled the South African film industry on the US model, not only in terms of visible imagery like massive, luxurious movie theatres with a virtually exclusive focus on US films, but also the organization of the industry, for example, its vertical integration (Campbell, 2000). In 1956, Schlesinger sold his interests to Twentieth-Century Fox which further consolidated the dominance of US film in the South African film market.

Under apartheid, government support for filmmaking favoured films that reflected Afrikaner nationalist views to the extent that films targeted at Afrikaans speakers received greater government support than films targeted at black or white English-speaking audiences (Tuomi, 2006a). This policy was not conducive to broad-based audience development or the production of quality films, and the quality and reception of most South African cinema can at best be described as inconsistent (Shepperson and Tomaselli, 2002). After South Africa's first democratic elections in 1994, film was identified as an industry with significant economic potential. A number of government agencies started offering support mechanisms and incentives, most targeted at the production of feature films. The Department of Arts and Culture, the National Film and Video Foundation and the Industrial Development Corporation provided film-specific assistance, while the Department of Trade and Industry, the

South African Revenue Service and some provincial governments offered more general business support (Tuomi, 2005).

The value chain of film (see Figure 1) encompasses five main activities (Goodell, 1998): in the development phase, the basic idea is developed and funding for the film secured. Pre-production involves a variety of planning tasks, for example, the selection of key people and the development of the screenplay, shooting schedule and continuity breakdown. Production involves the actual shooting of the film, while post-production encompasses editing and sound mixing. The distribution phase in the developed world involves exhibition in cinemas, and increasingly (including in Nigeria) the use of non-traditional channels like DVD and cable. Vang and Chaminade (2007) add a final step, merchandizing.

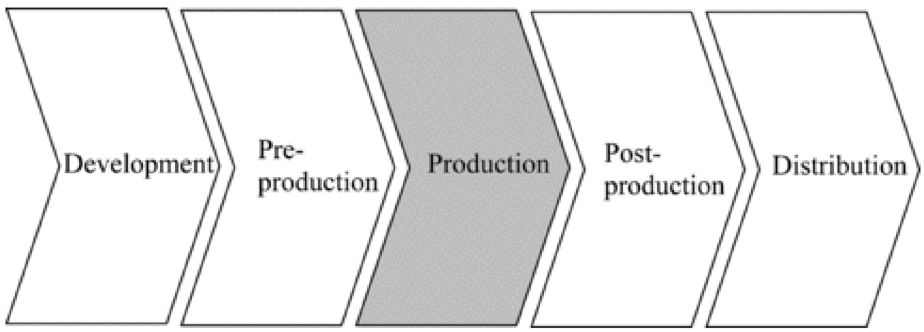

Figure 1. Film value chain.

South Africa has the capability to produce indigenous feature films and the number of locally made and distributed films has been increasing from about 2003 onwards (see Table 1). However, both the number of full-length feature films produced and their viewership remain small. Indeed, only five local films produced since 2000 have managed to gross more than R1 million (about US$133,000) at the South African box office (Tuomi, 2006a). For almost a century now, South Africans have had access to Hollywood films, and whatever criticisms one may care to direct at Hollywood for its superficial worldview, its films are characterized by technical excellence: inventive camera shots, sophisticated editing and high-quality special effects carry narratives that are chosen primarily for their potential to entertain, not to inform.

Table 1. Films partly or wholly produced in the Western Cape, South Africa (2002-2007)

Title	Type	Production company	Prominent actors and co-production partners
2007			
Cooked	TV series	Cooked Productions	
Skin	Feature	Moonlighting	
The Deal	Feature	Moonlighting	Meg Ryan
King Otto	Feature	Do Productions	
To Be First	Feature	Do Productions	
Follow your Heart	Feature	Do Productions	
Sinking the Lusitania	Feature	Do Productions	
Punch	Feature	Do Productions	
Three Investigators	**Feature**	**Two Oceans Productions**	**Germany and SA**
The World Unseen	**Feature**	**Do Productions**	**Lisa Ray**
			Canada and SA
Starship Troopers	Feature	Film Afrika	Daniel Craig
Cash	Indian feature	Filmad Afrika	
Flashbacks of a Fool	Feature	Moonlighting	
Big Fellas	*Local feature*		
2006			
The Avenger	Feature	Moonlighting	
The Flood	Feature	Moonlighting	
2005			
The Breed	Feature	Film Afrika	Michelle Rodrigues
			Taryn Mannings
The Mercenary	Feature	Do Productions	Steven Segal
Mama Jack	*Local feature*	*Delta Films*	*Leon Schuster*
The Triangle	Feature	Kalahari Films	
The Last Face	Feature	Moonlighting Films	Sean Penn
			Robin Wright Penn
			Javier Bardem
2004			
Lord of War	Feature	Reeleyes Film	Nicholas Cage
			Ethan Hawke
			Jared Leto
			Bridget Moynahan
My Way/Einmal so wie ich will	Feature	Two Oceans Productions	Senta Berger
			Götz George
			Peter Simonischek
Stars over Madeira	Feature	Two Oceans Productions	Denise Zich
			Gregor Toerzs
			Lucas Gregorowicz
Homo Sapiens	Feature	Ballistic Pictures	
Charlie Jade	**TV series**	**The Imaginarium**	**Canada and SA**
The Flier	*Local feature*	*Reflex/IMG Productions*	
Velvet & Silk	Feature	Two Oceans Productions	Christina Rainer
			Tim Williams
			Karin Giegerich

Table 1. Continued

Title	Type	Production company	Prominent actors and co-production partners
Love in Saigon/Eine Liebe in Saigon	Feature	Two Oceans Productions	Desiree Nosbusch Siegfried Terpoorten Nehmet Kurtulus
Story of an African Farm	*Local feature*	*Rodini Films*	*Richard E. Grant*
Supernova	Feature	Enigma Films & Film Afrika	
Tara Road	Feature		Andy McDowell
Poseidon Adventure	Feature	Enigma Films & Film Afrika	
Dollars and White Pipes	*Local Feature*	*Delta Productions*	
Ask the Dust	Feature	Moonlighting Productions	Colin Farrell Salma Hayek
Heaven/Kein Himmel über Afrika	TV series	ARD	Veronica Ferres Jean-Hugues Anglade Enrico Mutti Katharina Meinecke
The Ring	Feature	Do Productions	
uCarmen e Khayelitsha/Carmen of Khayelitsha	*Local feature*	*Spier Films*	
Out on a Limb	Feature	Vine Intl.	
A Boy called Twist	*Local feature*	*Twisted Pictures*	
Forgiveness	Feature	Giant Films	
Cape of Good Hope	Feature	Moonlighting Productions	Debbie Brown Nthathi Moshesh
34° South	*Local Feature*	*Hybrid Films*	
2003			
The Wooden Camera	**Feature**		**France, UK and SA**
In my Country	Feature	Film Afrika	Samuel L. Jackson Juliette Binoche
2002			
Pavement	**Feature**		**Robert Patrick** **Lauren Holly** **Germany and SA**
The Piano Player	**Feature**		**Christopher Lambert** **Dennis Hopper** **Australia and SA**

Note: Foreign films are indicated in regular font, South African films in italics and co-productions in bold.
Source: Cape Film Commission.

In order to attract an audience, filmmakers must meet the expectations of the South African film audience. Although South African filmmakers tend to have specialized production skills, quality production is expensive and filmmakers do not always have the budget to pay for more camera and lighting experts, better set design, etc. And in the other segments of the value chain, South African filmmakers have little experience. From script development to marketing, South Africans must compete with Hollywood's formidable infrastructure. The evidence suggests that South African filmmakers seldom win in this uneven battle.

Because local feature films—even with government support—are likely to be low budget, the much touted economic benefits of the industry tend to derive from the much larger foreign films. An interview with the South African production executive for *Lord of War*, a US/French co-production, reveals the large scale of operations in the making of the film: 566,000 feet of 35 mm stock, 22,550 sit-down meals, 6,218 fast food meals, 2,890 litres of cold drinks, 54,528 bottles of mineral water, 168 kilograms of filter coffee and 27 bottles of Jägermeister (per week!) were used to keep the cast and crew going. In terms of time, contrast the shooting time of the 70 days for *Lord of War* with 24 days for *34° South*, a South African production, or in terms of general spending on operations, the 2,448 extras used in *Lord of War* with the 100 extras used in *34° South*.

Although spending on this large scale clearly provides immediate benefits to a developing country, it does not necessarily translate into lasting industrial upgrading. Scott (2002) points out that the transaction costs associated with outsourcing—not only transportation and communication costs, but also diminished managerial control—are likely to limit the relocation of complex productions. Unless foreign partners are convinced of the quality of local operations, they are likely to outsource little more than television series. In addition, there is a “flavour of the month” tendency in the selection of locations for the outsourcing of production. South Africa saw a sharp increase in popularity in the years immediately after the end of Apartheid, but this has largely ended, and South Africa has already lost a number of productions to Argentina (Tuomi, 2006b). For the industry to remain viable once it has lost “flavour of the month” status, it is necessary to make the transition from being a low-cost to a quality provider of services. Rapid learning and upgrading are therefore essential for survival.

Even in the developed world, “runaway productions” find themselves constrained by the demands of Hollywood. Coe documents the international, national and local confines within which filmmakers in Vancouver operate, and how entrepreneurs must find opportunities within the “structural constraints” (2000: 405) imposed by the US film industry. The concentration in a narrow range of activities is helpful to ensure that firms' efforts will have financial returns: developing world-class capabilities in camera and sound work will result in more work; upgrading scriptwriting skills will not. Developing a deep understanding of cross-national production logistics pays off; investing in a better understanding of global marketing does not. Thus the pressure—and motivation—to upgrade the skills demanded by Hollywood is far more immediate. In addition, there are far more opportunities to learn skills within those areas: learning-by-doing through interaction with demanding Hollywood-based actors and directors is possible within the production and to a limited extent the post-production segment of the overall value chain. In the other segments of the value chain however, the South African industry has virtually no opportunity to work with and learn from more capable foreign partners. Even the potential learning from co-productions (where there is joint financing for film) has been limited. In Cape Town, the main film hub of South Africa, only six cases are documented in as many years (of which one is television and not film) and none of them involve Hollywood partners (see Table 1).

It is hard to accurately measure quality in the film industry, but it seems that many of the South African film companies have been able to upgrade production capabilities. The more recent foreign films produced in South Africa are more likely to feature box office stars than the initial ones. The employment in the industry continues to grow at about 10 per cent, in spite of the fact that the number of films produced is plateauing (Boting and Standish, 2006). South African filmmakers increasingly see themselves as competing for productions not with Latin American countries, but with Canada, Australia and New Zealand. The use of English as a lingua franca in South Africa makes it easier to compete with those developed economies, but the revised positioning also signals a definite level of technical competence.

Indeed, in spite of the fact that they are situated in very different contexts, the film industry of Cape Town, South Africa is strikingly similar to that of Toronto, Canada, as documented by Vang and Chaminade (2007). Although the Cape-based industry is smaller in terms of employment, economic impact and depth of capacity, the same elements are found in Cape Town as in the Toronto film cluster—diverse knowledge bases, openness and interconnectedness between parties. And like Toronto, its close relationship with Hollywood has resulted in the development of a narrow enclave of capabilities related to “runaway production”: in the Western Cape (in fact, across South Africa) 77 per cent of total film costs incurred are for production activities (Boting and Standish, 2006).

The processes of co-development and adaptation clearly underpin the evolution of the industry, and this is as true in a less as in a more developed country. By working with exacting producers (mainly from Hollywood, occasionally also from European countries) on a narrow range of activities, the emerging industry in South Africa has been able to develop some arguably world-class capabilities. But at the same time, the upgrading has not resulted in spillovers to other segments in the value chain. On the contrary, it seems to have spurred an increased unevenness in capabilities between different segments. The experience of the longer established Canadian film industry suggests that this specialization is likely to continue, and leads us to propose:

Proposition 1: Where local demand is substantially more sophisticated than local production capacity, high-quality niches rather than a broad-based industry will emerge.

The New Bollywood—Nollywood

Nigeria's film culture is a relatively new phenomenon. When film was first introduced, it was mainly used by colonists and missionaries to further their didactic objectives. As a result, film did not develop into a popular medium as it had in South Africa (Mgbejume, 1989; Akpabio, 2007). Even after being marketed as a form of entertainment, cinemas were really only accessible to the elite. Although Nigeria produces a number of documentaries and films targeted at a cinema (as opposed to a video) audience, these films represent a small segment of the market. The “Nigerian film” industry sets itself apart from the low-budget, mass production oriented “Nollywood”, and Yoruba producers often aim to open at the National Theater in Iganmu, Lagos, before distributing films to other local cinemas. These films are seldom profitable, but the producers consider them crucial in sustaining Yoruba theatre tradition (Haynes and Okome, 1998).

Nigerian film has suffered a number of setbacks. By the 1980s, the relatively affluent filmgoers were at such high risk of being attacked by criminal gangs that the movie-going culture all but collapsed (Ebewo, 2007). At the same time, the currency collapse made shooting film on conventional film stock very problematic for indigenous filmmakers.1 Together with the pervasive legal, economic, cultural and linguistic hurdles, it is hardly surprising that Hollywood films and production standards were not well known in Nigeria (Onyero, 1989).

The first identifiable “Nollywood” film, Kenneth Nnebue's very popular *Living in Bondage* was produced in 1992. It had no elitist aspirations—it was a tale of the occult—and was filmed in the local Igbo language and distributed on video (McCall, 2004). This circumvented the problems associated with film theatres. DVDs have subsequently replaced the video format, but the “home movie” (to use the Nigerian term) model for distribution and sale has become characteristic of the largest section of film production in Nigeria, Nollywood. Other filmmakers soon followed in Nnebue's footsteps and over the past 15 years, Nollywood has grown to become the third most prolific film industry after Hollywood and Bollywood in terms of the number of titles released annually.

It is hard to obtain accurate information about the economic impact of Nollywood, but estimates place employment in the industry at as high as 1 million, which would make it the second largest employer in Nigeria after agriculture (Sacchi, 2006; Ebewo, 2007). Its annual output is estimated at between 500 and 1,000 films—with *The Economist* (July 2006) estimating it at as much as 2,000 films. Annual sales are estimated somewhere between US$200 million and US$300 million—in other words, unit sales of in excess of 100 million a year for a discretionary product that at US$2 costs about 8 per cent of the average annual income of a Nigerian. Because the Nigerian film industry sells a product (DVD) rather than service (theatre tickets) it is not directly comparable to the film industry of other countries, but it is by all accounts commercially successful.

However, along almost any dimension the quality of films is poor. The “symbolic and emotional drama, and the wandering storyline contained in a typical 3-hour Bollywood film” (Lorenzen and Taeube, 2007: 3) may well describe a Nollywood film. The themes tend to be melodramatic—Akpabio (2003) lists topics like witchcraft, cannibalism, incest and the evils of polygamy along with the more “standard” fare of mother-in-law problems and rivalry between lovers! Technically, the films also suffer from extremely low budgets and very short production periods. The budget of US$2-3 million per indigenous South African film seems generous compared to the average US$15,000 budget of a Nollywood film, while the entire filmmaking process from conception to marketing seldom takes more than 15 days (Sacchi, 2006). The “infant industry” status of Nollywood is also clear from its complex, unregulated distribution system. The markets themselves are characterized by an “amalgam of patronage, territorial claims and customary bribery” and the price of products is determined by the “haggling” skills of the buyer (McCall, 2004: 105). A prominent banker, speaking at the opening of a Nigerian film event (Aderinokun, 2005) asks a number of seemingly simple questions, none of which can (yet) be answered by industry players: What is the average cost of a good movie, or the annual turnover of a typical producer? Do companies in the film sector have audited accounts or formal structures? The rise of Hollywood coincided with the collective action of entrepreneurs (Mezias and Kuperman, 2001) but thus far there has been resistance to almost any level of organization in Nollywood. Although there have been recent calls for more regulation from the Nigerian Film Corporation and cultural groups such as the Council of Igbo Elders (McCall, 2004), many oppose such interventions, fearing that they will introduce censorship. Lack of infrastructure also precludes a significant increase in regulation in the near future, and in this regulation vacuum, videos that have been shot and edited are distributed in a decentralized fashion through market stalls and small-scale vendors.

There are many points of similarity between Nollywood and the somewhat better-established Bollywood. Some of them have to do with how the industries are structured. For example, Taeube and Lorenzen (2007) document that Bollywood is not vertically organized, but characterized by very strong horizontal linkages. Likewise in Nollywood positions are determined not by competence, but by connections, people who are “part of our circle”. This is how Ebewo (2007: 53) reports the response of a Nigerian filmmaker, Sam Kargbo, to journalist Ugochukwu Ejinkeonye who criticizes his choice of lead actress:
Of course, there were others in the industry that could have played the role, but she is part of our circle and we felt that she could do well and we still feel that we did the right thing.

There is foreign interest in both Bollywood and Nollywood, but in both cases, the interest is focused on distribution. Hollywood has recently been trying to gain a greater foothold in Bollywood, and Lorenzen and Taeube (2007) argue that Hollywood's emphasis on distribution is in fact a response to the socially networked structure of other segments—Hollywood lacks the networks needed to access star actors, actresses and directors, and therefore cannot enter production. In the case of distribution in Nollywood, it is not Hollywood but the more local South African media companies that are interested.

Most of the similarities between Bollywood and Nollywood can be related back to demand factors. Neither of the industries receives any significant level of government support (Ebewo, 2007; Lorenzen and Taeube, 2007) and they respond purely to market demand. Both industries therefore produce populist films free from the constraints posed by a government wishing to advance a certain image of its country and people. Indeed, the liveliest debate on Nollywood is on whether or not the content of Nollywood films is demeaning to Nigerians (see, for example, the exchange between Bob Ejike and Ola Balogun on http://fakafiki.blogspot.com/). Akpabio studies the attitude of Nigerians to the themes of Nollywood films, and captures their simultaneous appreciation for films that reflect a familiar world and self-distancing from its more garish themes:

Respondents have a largely favourable attitude to Nigerian home video productions even though they expressed the view that there is too much emphasis on themes such as sex, violence, prostitution, sibling rivalry, evils of polygamy, devilish spiritualism and related themes. (2007: 99)

ƒƒBoth Bollywood and Nollywood evolved in populous countries, resulting in a sizable potential market for film, even though income levels are low. In addition, there was a very limited pre-existing expectation of what a good film should look like. There is broad agreement that Nollywood films are characterized by African narrative techniques and informed by the conventions of long-existing Yoruba travelling theatre artistes (Künzler, 2006; Akpabio, 2007). Similarly, filmmakers in India were able to develop a film culture with recognizable narrative and technical characteristics. Recently, other African countries have started imitating Nollywood. Künzler (2006) documents a Ghanaian imitation, and Ondego (2006) a Kenyan imitation of Nollywood, “Riverwood”. Both countries have a much smaller population than Nigeria, but the combination of low production values and modern digital technology has resulted in a much lower breakeven point than for traditional film: employing a similar cost model to Nollywood (films cost about US$3 retail), breakeven point in Riverwood is estimated at about 500 copies. This suggests that a large population (and thus large demand) may no longer be centrally important. Instead, two other dimensions of demand are potentially relevant. One is the sophistication of demand and the other the growth in demand.

The lack of sophistication of the Nigerian film industry is evident from the types of improvements that a sympathetic commentator suggests. In terms of technical advances, Ebewo (2007) recommends the use of boom and environment-friendly microphones to get rid of uncontrolled background sound, the use of camera movements like tilting, panning, tracking or dollying rather than only using a static camera, and the use of lighting equipment to eliminate unintended shadows or weak colour. Ebewo (2007: 50) does state that Nollywood cameramen “deserve a commendation because I have never seen an unwanted microphone in a shot”. As far as skills development is concerned, he recommends familiarizing actors with the difference between stage and screen acting, and alerting directors to film-appropriate techniques like silence rather than asides which are “usually ineffective because a character who is not supposed to be hearing the aside will often appear in the same shot” (2007: 52). In the South African film industry, such skills are entry requirements.

The willingness of Nigerian consumers to view unsophisticated Nollywood films has proven to be an important enabler in the evolution of the Nigerian film industry. South African audiences, accustomed to Hollywood films, would never have offered the same audience support to technically poor local films. Indeed, although a South African media organization (DSTV) is paying a key role in introducing Nollywood to the rest of Africa, and although Nollywood is increasingly popular in a range of African countries (Onishi, 2002), it remains virtually unknown in South Africa. Economic growth in the country remains slow, and although there is a potential diaspora market—over 7 million Nigerians are estimated to live abroad (Aderinokun, 2005)—this would also involve dealing with the ratings boards of host countries. Given the lurid themes of many Nollywood films, this is a potentially more severe challenge than for Bollywood. It is therefore estimated that the Nigerian industry will continue to produce films of relatively low quality, but will also continue to control the full value chain of this industry in the country. This leads us to propose:

Proposition 2: Where local demand is matched to local production capacity, a broad-based, low-quality industry will emerge.

Proposition 3: The emerging broad-based industry will have substantial economic power in the local developing country, but will over the short term not present a serious threat to more sophisticated incumbents from the developed world.

Conclusion

This paper provides evidence that the upgrading process of developing countries is most likely to take place in those areas where supply- and demand-side elements are approximately equally matched. When demand is far more sophisticated than supply-side capability it is hard to establish a meaningful feedback loop (and thus mutual and accelerated learning) between the supply and demand factors. Although more sophisticated international business does spur upgrading, it does so only in pockets. In contrast, where there is almost no foreign presence and both the supply- and demand-side factors are quite unsophisticated, an entire value chain can evolve. Christensen (1997) documents the risks associated with emerging technology markets for firms that are already highly successful, but it seems that in the developing world, there are also risks associated with well-developed markets where firm capabilities are still emerging.

Globalization has been changing the nature of such an enabling middle ground between the most advanced multinationals and firms from developing countries, and the change seems set to continue. The range of activities undertaken within a given country (at whatever level of development) is steadily narrowing (Cantwell and Vertova, 2004) and the ongoing fragmentation of the supply chain can reduce the scope of activities and learning available to a developing country. As globalization stimulates concentration of higher value activities (Cantwell and Santangelo, 2000; Nachum, 2000; Zaheer and Manrakhan, 2001), there is a concomitant increase in the gap between the capabilities needed to compete in a global industry and the capabilities of developing countries. Thus there is likely to be a more limited scope of activities where it is possible to establish meaningful points of connection between inputs from advanced economies and local developing country firms. Moreover, where learning does occur in developing country firms, an accelerated speed and sophistication of learning and upgrading are required.

Figure 2 highlights three stylized development trajectories that can occur in developing countries. The first (a) involves no foreign contact, where an industry increases its skills and competitiveness through learning-by-doing. Learning is broad-based, and there is a clear match between supply- and demand-side capabilities. However, upgrading takes place only incrementally, and industries generally suffer from a lack of global competitiveness.

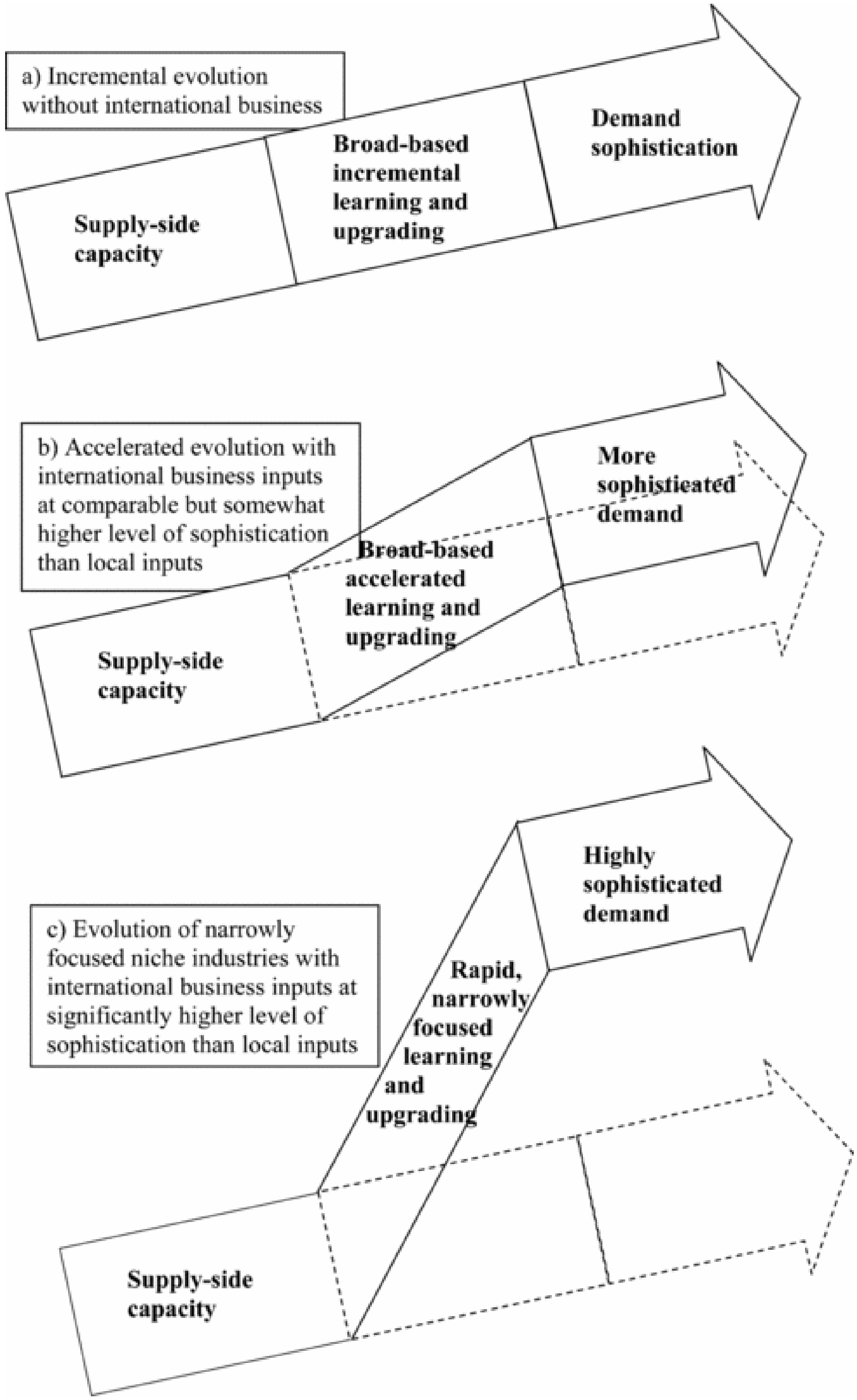

Figure 2. Three stylized developmental trajectories.

Most of the cases of successful upgrading through international business contact reflect a process comparable to that portrayed in the second graph (b).2 International business introduces somewhat more sophisticated demand, but there are still significant points of connection between the local and required foreign capabilities.

The increased sophistication of demand acts as a spur accelerating the learning and upgrading process, but because there are adequate points of connection with the local capability base, the upgrading process remains broad-based.

The final graph (c) reflects upgrading when the production capacity of the local industry as a whole is not at a high enough level to meet the sophistication of demand created by foreign firms. Some pockets of activity may be at the requisite level of competence, and those pockets are likely to benefit from very rapid learning and upgrading. However, learning will be narrowly focused, resulting in the development of a local industry with very uneven capabilities. This trajectory not only reflects but also contributes to an increasing fragmentation of the supply chain.

In terms of film, the industries of countries like India (Bollywood), Nigeria (Nollywood) and China most closely resemble (a) in Figure 2. These industries have evolved in virtual isolation from the rest of the global film industry into fairly unsophisticated but dynamic, broad-based local industries. Having established an industry, learning-by-doing is enabled by the large volume of films, and necessitated by the continuing entry of hopeful new entrants into the industry. However, upgrading is not taking place rapidly.

Nollywood follows the trajectory highlighted in graph (a) of Figure 2: it is upgrading a broad range of capabilities, but only incrementally. Historically, this trajectory has also described the evolution of Bollywood, although Bollywood has recently accelerated upgrading. Lorenzen and Taeube (2007) highlight two factors driving this acceleration, both of which suggest a co-evolution of demand and supply factors. First, sustained economic growth in India has resulted in a booming middle class with higher expectations of entertainment. The second involves international business: Bollywood is increasingly exporting films, and is thereby coming in contact with the more sophisticated demand of a global audience—many of whom are non-resident Indians, but nonetheless familiar with Hollywood production quality. In both cases, the improved supply is triggered by an incremental evolution in demand. In consequence, the speed and depth of transformation of Bollywood in recent years more closely resembles graph (b) of Figure 2.

In contrast, the industries of countries like Argentina, Brazil and South Africa have developed with a very vivid awareness of the global film industry. However, the significant gap in general capabilities between the film industries of those countries and the global film industry, especially Hollywood, has resulted in a development trajectory more similar to graph (c).

The learning and upgrading of the Nigerian and South African film industries are summarized in Table 2. In South Africa the close relationship with Hollywood has resulted in the dramatic upgrading of very narrow niches, but because of pronounced audience preferences, also the virtual non-development of the other segments of the value chain. In Nigeria the fact that there was so little awareness of higher quality foreign films allowed a vibrant industry to emerge. But although this industry spans the entire value chain, its capabilities are limited. By focusing on trajectories (a) and (c) that have been less researched in international business, this study is able to shed light on the mechanisms through which demand sophistication translates (or not) into general economic development.

Table 2. Learning and upgrading in the Nigerian and South African film industries

	Nigeria (Nollywood): No meaningful foreign (Hollywood) presence	South Africa: Substantial foreign (Hollywood) presence
Scope of activities	Broad—entire value chain	Narrow—specialized niches in value chain
Capabilities of local industry	Weak	Weak overall, but world class in niches
Main mode of learning and upgrading	Local learning-by-doing	Response to foreign demand and integration of foreign resources
Extent of learning and upgrading	Incremental across all parts of the value chain	Rapid in niche areas, very little in rest of industry
Motivation to learn	Better meet the needs of the local market	Better meet the needs of foreign clients

In terms of sustained economic growth, there are risks and benefits associated with both trajectories. Commentators point out that even long-established European film industries are struggling to compete with Hollywood (Kerrigan and Culkin, 1999; Vang and Chaminade, 2007). But while Vang and Chaminade (2007) use the phrase "vicious circle" to capture how the increasingly close relationship between Hollywood and Toronto is stunting the ability of the Canadian film industry to produce indigenous feature films, in the case of a less developed country, such a pessimistic assessment may not be warranted. The multiplier effect of foreign investment in the film industry is substantial, the industry is labour-intensive, and the bulk of the jobs resulting from Hollywood productions in South Africa are relatively insensitive to the systemic weaknesses that are typical of the education systems of developing countries (Tuomi, 2006a). Jobs in sound and camerawork, wardrobe, make-up and set design tend to have multiple entry points (not only through formal education) and offer the potential for individual and societal upward mobility.

On the other hand, the experience of Bollywood and Nollywood suggests that a successful industry can be entirely homegrown. Upgrading in these industries would eventually require interaction with the leading global players (in the case of film, actually single main player—Hollywood) and there is no way of predicting how well the industry would respond. In fact, it is telling that foreign interest in both Nollywood and Bollywood has so far been focused on distribution. Power in value chains is greatest at the beginning and end of the value chain (Kaplinsky, 2000) and foreign players are clearly most concerned about gaining greater control of the market. It remains to be seen whether the capabilities of the industry will be sufficiently developed to allow it to benefit from the interest of foreign entrants. Whether economic upgrading is better enabled when developing countries occupy a small niche in a leading global value chain or an entire, but relatively unsophisticated value chain, is a topic that requires a separate study.

This paper documents the role of foreign demand in the evolution of industrial trajectories by investigating the film industry in two different countries. Although both South Africa and Nigeria are developing countries, differences in the sophistication of local demand have given rise to two very different local film industries. In Nigeria there is virtually no gap between the expectations of different parties in the film industry (e.g. customers, producers and distributors), resulting in a robust but low-quality industry. Learning is slow, because the need for adaptation,

(re-)integration and (co-)development is not clear. Although the underdevelopment of an economy has the potential advantage of minimizing the risk of lock-in and creating a greater incentive for trying new solutions, and meeting some of the criteria for “radical innovation” as proposed by Christensen (1997), the industry fails to meet a threshold level of quality that would allow it to challenge the industry globally.
In contrast, in South Africa familiarity with a high-quality foreign offering creates a substantial gap between the actual and desired capabilities of the emerging industry. This gap may create the motivation for learning, but it is hard to close the gap—that is, integrate the weaker local with the stronger foreign capabilities—across all segments of the value chain. The most appropriate response seems to be to identify niche areas where the emerging industry is most likely to achieve the desired high level of capabilities. Because the work of foreign partners serves as model of what the less developed country aspires to, the industry tends to be very responsive to the needs of those partners. Both the rapid pace of learning and upgrading and its narrow scope result from the fact that capabilities co-develop with the needs and requirements of foreign partners.

With the continuing rise of globalization, it is increasingly likely that less developed countries will have access to products and services that are significantly more complex than what the local capacity base can support. By comparing the differing evolution of the same industry in two countries—one accustomed to a highly sophisticated foreign offering and the other with virtually no exposure to such sophisticated products—this paper highlights the complex role of demand in shaping the trajectory of an industry.

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