The rise of film production locations and specialised film services in European semi-peripheries

Krzysztof STACHOWIAK¹ and Tadeusz STRYJAKIEWICZ¹

Abstract

The research on a creative economy has been gaining momentum globally in the recent years, but the associated concepts such as the cultural economy, the creative class, creative cities and so on, have typically been urban or national in orientation. There is evidence showing that many important developments in creative industries take place now in almost all parts of the globe. One of the creative industries which may serve as a vivid example of the complex interplay between the global core and the local periphery is film industry. The paper aims to discuss rise of film production locations and specialised film services in European global semi-peripheries. Globalisation of film industry involves the expansion of production away from the established and globally recognised centres, such as Hollywood or Western Europe. While some researchers refer to this development as a ‘runaway production’, this paper examines it through a broader look to core-periphery relations and points out their implications and consequences from the perspective of European countries (with a focus on post-socialist countries of East Central Europe).

Keywords: creative industries, film industry, film services, core-periphery, semi-periphery, Europe

Introduction

Core-periphery relations can be useful in explaining some processes taking place in creative economy. Creative industries are currently under a global shift (Flew, T. 2013). It means they spread outside the core and they play an increasingly important role especially in so-called semi-peripheries. Semi-peripheral countries contribute to the production and export of a variety of goods, including cultural and creative goods (UNDP/UNCTAD 2010; UNDP, UNESCO 2013). They are marked by above average cultural producers, as exemplified by Argentina, China, India, Brazil, Mexico, Indonesia, and Iran, but also smaller countries such as Poland, Czech Republic and other East-Central European countries (UNDP/UNCTAD 2010). Not only semi-peripheral countries contribute to increasingly globalised creative economy, but creative industries have become substantial part of the local and regional development in those countries. Many studies have pointed out the role of creative industries in post-socialist transformation of Central and European countries (Śvob-Dokić, N. 2005; Egedy, T. and Kovács, Z. 2009; Stryjakiewicz, T. and Męczyński, M. 2010; Rumpel, P. et al. 2010; Slach, O. et al. 2013; Musterd, S. and Kovács, Z. 2013; Stryjakiewicz, T. et al. 2013, 2014; Chapain, C. and Stryjakiewicz, T. 2017). Our paper tries to build on that research output and extend the existing knowledge by exploring how core-periphery relations matter for globalising creative industries. We will present this role using the case of European film industry (with a focus on post-socialist countries of Central and Eastern Europe).

The paper is structured as follows. First, we will indicate the role of peripheries and semi-peripheries in the global value chain of creative industries. It will serve as a de-
parture point to show the global shift in one of the most internationalised among all creative industries, notably the film industry. We will then analyse three main aspects of contemporary global landscape in film industry: the global spread of film production infrastructure, such as film studios, the rise of international collaboration in film production, and the emergence of cost-cutting incentives, or policies intended to attract international film production. The paper is an attempt of synthesis of current knowledge and existing knowledge, using some data on film industry to illustrate the main arguments. Therefore, a multimethod approach was used, mixing qualitative and quantitative data on current processes in film industry.

The role of peripheries and semi-peripheries in the global value chain of creative industries

The value chain in the creative economy can be divided into two main parts related to the generation and capture of values. Basically, we can say that value production corresponds to production processes, while value capture is related to distribution and consumption. Each of these stages requires various resources and competences: creativity, knowledge or skills (Santagata, W. 2010). This chain is schematically presented in Figure 1. The curve on the graph shows what added value brings in the individual stage of the value chain. These approximate values were determined by the reconstruction of value chains in various creative industries, which had been analysed by many researchers. They include, among others, publishing industry (AT Kearney 2010), film (Finney, A. 2010; Kehoe, K. and Mateer, J. 2015), music (Meisel, J.B. and Sullivan, T.S. 2002), video games (Kerr, A. 2006), performing arts (Brecknock, R. 2004; Walmsley, B. 2011), and media (Doyle, G. 2002; Falkheimer, J. and Janson, A. 2006). In addition, a number of value chain analyses referring to the creative sector as a whole was taken into account (Hearn, G. et al. 2007; Bakhshi, H. and McVittie, E. 2009; Santagata, W. 2010; PWC 2011; Walmsley, B. 2011; Lampel, J. and Germain, O. 2016).

The process of value creation begins with (1) the conceptual phase, which starts with the idea for a creative good (such as film, song, or video game) and ends with the development of a project on how the good should look at the end. Santagata, W. (2010, 15–18) argues that the conceptual phase is preceded by the selection process of creators and that it is actually the first stage of the entire value chain. When the concept is accepted, the second stage begins; it is related to (2) financial and organizational work. This stage is aimed at determining the profitability of a given venture, as well as financing possibilities. Not all ideas or products have a chance for commercial success. At this stage, therefore, the assessment of the possibility of marketability of a given product occurs. The knowledge is a key competence here, especially knowledge of the particular market or the specificity of the industry.

The next stage is (3) pre-production, that is preparatory work. The production of creative goods, especially complex ones, is often expensive (e.g. recording in a professional music studio, or making films outdoors), therefore its proper preparation is to ensure the rationalization of expenses. The business knowledge regarding the organization of creative ventures as well as knowledge of legal issues are also crucial here. As this phase also includes preparation for the creative work with other people, social skills and networks are important at this stage. Proper production of a given good is the next phase (4), during which the good is created - song, advertisement, film, video game, theatrical performance. The production of each of these goods is different from each other, because their specificity is different. Nevertheless, the production of each of them requires a great deal of creativity, artistic and literary knowledge and skills in a given field of art or other activity. Each of the creative professions (singer, painter, sculptor, architect, advertising specialist, fashion designer, screenwriter, etc.) has a specific
combination of competences – skills and knowledge, whose creative use leads to the creation of the original good.

The next link in the value chain is (5) post-production. It occurs mainly in industries that produce complex creative goods. This is the stage in which this good must be “pieced together” from the parts produced at the production stage. In the case of audio-visual industries, this is the period after the end of the photos and sound recordings and lasts until the emission copies of the film are made. In the music industry, it refers to works after recording, related to sound processing and the preparation of a model version of the album. In publishing, it includes, for example, the correction or preparation of a book cover. It is a stage requiring large amounts of knowledge, skills and competence. For example, in the production of a film at this stage, special effects are created, which in high-budget films, using advanced technologies, are often the main aesthetic value of the film. Hence, in such cases it is the stage with the highest added value, which is reflected in the amount of expenditures on post-production activities (in the case of many blockbuster film post-production accounted for around 25% of the film budget). The finished good is then prepared for release on the market.

This stage therefore applies to (6) promotional activities and advertising when the product brand is shaped, its identity is carried out and advertising campaigns are implemented.
Promotion and advertising start the process of value capture. (7) The *distribution of goods* ensures that they reach the largest group of consumers. Part of it is often (8) *exposition*, which refers to making creative goods available to consumers. Due to its importance in creative activities, it is recognized as a separate link in the value chain, although it often runs parallel to consumption. A basis for the distinction of the exhibition phase is the role of the recipient’s contact with the good or its creator. The vernissage, the premiere of a film, a book or art in the theatre, but also an ordinary exhibition of paintings in the gallery, a film screening or a concert of music are important elements of contact between the good and the audience. In this phase, there are also contacts between creators and audiences. The examples of activities included in the exposure phase are cinema activities in the film industry and activities related to the organization of concerts in the music industry. In both cases these activities are considered as separate market segments (respectively film and music).

The final link in the value chain is (9) *consumption*. Advanced forms of consumption of creative goods, in particular prosumption, interfere with creative processes, thus indirectly (and sometimes even directly) contribute to the creation of values.

Value chains of creative activities are now spatially disaggregated (cf. Mudambi, R. 2008), therefore issues related to the location of individual links in the value chain are of great importance. Along with the added value curve for creative industries, Figure 1 presents, as a reference, a similar curve developed by Mudambi, R. (2008) for high-tech industries. The value added curve is U-shaped, which results from the fact that the initial links of the value chain of such products as computers, smartphones, consumer electronics, are created by research and development or engineering design that bring a lot of added value. The production of such goods consists in the production of components and assembly in special factories, most often performed according to a strict procedure designed in the initial stages. The added value is therefore relatively small. The places of such production are most often factories in China, Taiwan or South Korea. Then the finished product is sold, which is accompanied by advertising and promotional campaigns, after-sales services and logistics, so the added value increases again. The case of creative industries is somewhat different. As it can be seen in Figure 1, the stages with the highest value added in the creative industries are production and post-production. Those are also the stages requiring skills, creativity and knowledge. Therefore, outsourcing production in the creative industries is not necessarily related to routine and low-skilled job. Many of production and post-production activities are taking place outside of the core locations.

In the mid-nineties the U.S. National Research Council published a report convergence of computing, communications, and entertainment (NRC 1995). The report formulated a significant forecast (NRC 1995, 14): *Established entertainment centres (i.e. Los Angeles, New York) are no longer secure in their hegemony. In the next few decades, they will find that the dominance associated with physical concentrations of specialists, facilities, and mystique will be subject to profound change in the developing digital convergence matrix. Location independent communities, improving microprocessor-based production tools and methods, and the rapid dissemination of many skills in expanding world markets, all undermine centrality. Just as “Detroit” is a metaphor, so it will be with “Hollywood” also.* This prediction has worked fairly quickly, at least with regard to Hollywood. Employment only in the film industry in Los Angeles and its surrounding areas fell in the period 1999–2002 from 155,000 down to 130,000, which is about 15 per cent (Scott, A.J. and Pope, N.E. 2007). The number of films produced in the Los Angeles region also fell, and in subsequent years the crisis deepened (Walls, W.D. and McKenzie, J. 2012; Christopherson, S. 2013). The film production has moved to new locations in Canada, mostly to British Columbia, which was dubbed as Hollywood North.
Global shift in the film industry

Due to rapid digitalisation, both production and distribution of creative goods have been altered and became globalised. This changed the dynamics of many industries, influencing also the places where those activities are located and contributing to their specialisation. A good example of a creative industry undergoing global shift is the film industry. It is organised around various stages in the production chain: a preparatory stage (pre-production), shooting (production) and post-production. Some researchers also add the stages of the distribution of a film and its exhibition. While traditionally almost the entire chain of film production used to be concentrated in a single place (e.g. in Hollywood), today a growing number of stages are introduced in a variety of locations (Walls, W.D. and McKenzie, J. 2012; Mirles, T. 2013). In fact, the film production has recently emerged as a global production network. The term ‘global’ does not necessarily imply that such a network actually spans the entire world; rather, it suggests that it is geographically extensive and functionally integrated across national boundaries. As such, globalisation of the film industry involves the expansion of production away from its established centres, whether to other countries or to other locations within the same country. This has been reinforced by recent trends in the film industry, like cross-border film production or the rise of production networks through international co-production initiatives, which affect established production locations (Dahlström, M. and Hermelin, B. 2007). Some groups, notably from the US film industry, refer to this development as a “runaway production” (Elmer, G. and Gasher, M. 2005; Lukinbeal, C. 2006; Wasko, J. and Erickson, M. 2008). While it is now generally agreed that the film industry is turning into a global network, there is a dispute among scholars on whether the nodes of this network tend to become less important than the linkages (Wasko, J. and Erickson, M. 2008). Nevertheless,
the majority of film production industries is concentrated in a relatively small number of specialised places called film or media clusters (Karlsson, C. and Picard, R.G. 2011). This is illustrated by Figure 2, where film and media sub-sectors tend to be one of the most
concentrated cultural and creative industries in Europe. Coe, N.M. (2015) argues that film production has recently emerged as a global production network.

A new landscape of the global film industry includes: (1) the global spread of film production infrastructure, such as film studios and film clusters, along with the emergence of satellite production centres, (2) the rise of international collaboration in film production, and (3) the emergence of cost-cutting incentives, or policies intended to attract international film production. The case of the film industry shows that the location pattern of creative enterprises depends in particular on the branch of industry they belong, and on whether their activity is divided into stages in the production chain. We will elaborate on those three aspects of contemporary global film industry, focusing on Central and Eastern European countries considered as semi-peripheries. We want to show the dual nature of the processes involved: globalisation has created a variety of opportunities for film industries in these countries, but on the other hand they are still struggling to fully utilise all those possibilities.

**Film studios as nodes of a global production network and their emergence outside the core**

Individual value chains or production circuits are, themselves, enmeshed in broader production networks of inter- and intra-firm relationships, that is relationships between and inside firms. Such networks are, in reality, extremely complex structures with intricate links – horizontal, vertical, diagonal – forming multidimensional, multi-layered frameworks of economic activity (Coe, N.M. and Yeung, H.W-C. 2015; Dicken, P. 2015). In addition, global production networks (GPNs) are not simply technical-economic mechanisms through which the production, distribution and consumption of goods and services occur. They are „simultaneously economic and political phenomena (…), organizational fields in which actors struggle over the construction of economic relation-ships, governance structures, institutional rules and norms and discursive frames (…). GPNs thus exist within the ‘transnational space’ that is constituted and structured by transnational elites, institutions, ideologies” (Levy, D.L. 2008, 944). Film studios are part of the global media landscape and can be thought as nodes of global film and media production networks. The actions of, and the interactions between, the five actor-centred networks shown in Figure 3 – transnational media corporations, states and regions, creative workers, audiences, film studios – shape the changing geographical configuration of the global creative economy through their differential involvement in production circuits and networks.

Film studios oriented primarily to international production are parts of a mobile, fluid, slippery international production ecology shaped by broader industrial trends, such as: (a) international production levels, (b) the relative importance of particular markets, (c) the prominence of coproduction as an industrial norm, (d) the tendency toward agglomeration and the creation of multinational media corporations at one end of the scale and their interaction with a growing number of small firms at the other, and (f) the adjusted role and objectives of state and national government and of media policies (Goldsmith, B. and O’Regan, T. 2005). But the studios where much of this production takes place are also parts of a local, regional, or national production ecology or cultural sector, rooted

Fig. 3. Major actor-centred networks in the global film production. Source: Adapted from Dicken, P. (2015, 58)
or embedded in a place, featuring as employers or workplaces, as physical presences or landmarks in the built environment, as well as economic drivers. While we can trace the expansion of a competitive market for international production, we must acknowledge that it is always to some degree linked to the local production ecology of particular cities, regions, and countries. Studios seem to encourage the simultaneous existence of parallel and convergent dynamics. While some infrastructure developments, such as the studios built in Central and Eastern European countries, do focus to large extent on international production, understanding the contemporary studio complex as a part of film policy involves seeing it as a vehicle with the potential to bring the local and the international into a productive relationship. Indeed, there is an implicit and sometimes explicit assumption that “international production” will “cross-subsidize” domestic capacity in some way, through technological renovation, skills development, or some other mechanism (Moran, A. 1996).

Late 20th century and early 21st century have witnessed a global spread of film production infrastructure, such as film studios and film clusters, along with the emergence of satellite production centres. Stachowiak, K. (2018) have mapped and analysed 275 film studios from around the world (outside the US) which are part of a newly emerged international film production network. This mapping exercise has shown that the number of new film studios has increased significantly in the last decades (Figure 4).

Research carried out by Stachowiak, K. (2018) also shows, that many new establishments have more diversified capacity. They serve not only as production facilities, but also as post-production studios or pre-production services. In some cases, they can offer a coverage of almost whole value chain. Table 1 presents the number of film studios by number of services offered (corresponding to value chain stages: pre-production, production or post-production). For example, a studio with two services offered can cover two out of three stages. Results shows that over a half of film studios in Europe and South America offers at least two services (usually production and post-production), what makes the more competitive on a global market. These include new establishment mostly in Central and Eastern Europe: Poland, Czech Republic, Bulgaria, Moldova, Ukraine as well as in Turkey.

**International collaboration in European film industry**

Co-productions are or great importance for international feature film production. Historically, co-productions firstly rose to prominence in the 1950s and 1960s, with US studios trying to take advantage of subsidies in Europe through co-production.
structures (Kanzler, M. et al. 2008). After the decline of the European film industry in the 1970s, co-productions were revived by European Union legislation in the late 1980s and entered the second period of growth at the beginning of the 1990s. According to Morawetz, N. et al. (2007) more than 30 per cent of all films in Europe have been made as co-productions, although they are significantly more expensive than single firm productions, more complicated to execute, and do not necessarily enhance a project’s potential to gain international market success. It was mainly due to the fact that, faced with the continuing decline of the European film industry, many European governments decided to revive co-productions in the late 1980s, bringing co-production agreements in line with the European Economic Community’s (EEC) “open market” philosophy and allowing director, writer, cast or crew to come from any (then) EEC country. In the context of the burgeoning home video market and increased foreign sales, “co-production became a buzz-word on the tips of virtually every European independent producer’s tongue” (Finney, A. 1996, 91).

Growth of co-production was further encouraged in the mid-1990s with the ratification of the European Convention on Cinematographic Co-production (Jäckel, A. 2003). In force since 1994, the agreement is a legal umbrella under which the 38 signature members of the Council of Europe can co-produce freely with each other. The convention has largely rendered bi-lateral treaties between signatory countries in Europe obsolete. The relative ease (in comparison to previous decades) with which projects can be set up legally as co-productions under the convention has certainly contributed, at least in part, to the continuous growth of co-productions in the last decade. Another important institution that has facilitated co-productions in Europe is Eurimages, the Council of Europe’s fund for the co-production, distribution and exhibition of European cinematographic works. Set up in 1988/89, Eurimages has 37 member states (2017) and has financially supported more than 1,100 films since its inception. Although criticized for being bureaucratic and having an elitist bias, Jäckel, A. (2003) states that Eurimages has greatly expanded the range and diversity of film projects (mainly though co-productions) in Europe over the past decade.

The co-productions framework in Europe along with globalisation of the film industry became an opportunity for “cinemas in transition”, especially after 1989 (Portuges, C. and Hames, P. 2013). Despite a relatively small market potential as compared to countries with established film industries (such as the UK, France, Italy, Spain), East Central European cinematographies are trying to increase international collaboration. Tables 2a and 2b present the number of national films produced in European countries against co-productions. For each country a ratio of co-productions (both major or minor) to national films was calculated to show the relative significance of international collaboration. It can be observed that many film industries of Central and Eastern European countries, especially smaller ones such as Slovakia or less developed such as Bulgaria and Romania, have tried to capture the international production (Table 2a). Their co-production-to-national film ratios were higher than in established film industries such as French or German (Table 2b).

Geographical distribution and supporting measures for film production in Europe

Geographical distribution of the film industry is uneven. The “Big Five” comprises most of this industry in the EU, namely France, Germany, Italy, United Kingdom (UK) and Spain. These five countries account for as much as 80 per cent of the film industry in Europe (Katsarova, I. 2014b). They enjoy more continuous film sector growth, investment in film projects, movie theatre popularity, and foreign market interest than the rest of Europe. However, when assessing the overall situation of the EU film industry, it is necessary to distinguish between these
five giants and the rest of European countries whose film industries are much weaker in terms of competitive position and capacity. In this respect, it is convenient to divide the overall European film market using the Kanzler’s grouping system (KANZLER, M. et al. 2008), which splits it up into four regions, the Big Five, the rest of Western Europe, Scandinavia, and Central and Eastern Europe.

The biggest film service customers in Europe are the big six American studios, Warner Bros., The Walt Disney Company, Paramount Pictures, 20th Century Fox, Universal Studios, and Sony Pictures Entertainment. American film projects that have received big six funding, on average, have budgets exceeding 85 million euro, while the EU average is 11 million EUR for UK films, 5 million EUR for Germany and France, and just 300,000 EUR for film projects in such countries as Estonia and Hungary (Katsarova, I. 2014a). Thus, with money this vast at stake, it is easier to understand why countries are competing for foreign film production. Therefore, film tax incentives can be identified as one of the key government strategic tools of investment promotion, which have now become crucial for attracting film

### Table 2a. Number of feature films and international collaboration in film production, 2003–2016

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<th>Films</th>
<th>A) East Central European cinematographies</th>
<th>B) Western European cinematographies</th>
<th>C) Nordic countries</th>
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projects fleeing the USA (Olsberg, J. and Barnes, A. 2014; Meloni, G. et al. 2015). This promotion mechanism often runs parallel to state support, such as cash rebates, grants or fee-free locations (Luther, W. 2010). State support is often available only to citizens of particular country. Meanwhile, foreign operators can take advantage of cinema tax relief just by fulfilling the condition of spending most of the aid received in that country. So Americans, fleeing the already very expensive Hollywood and looking for space to make their film projects, happen always pay attention to three things: the geographical location required by the plot, the opportunity to assemble an experienced local team, and lower production costs. In this case, Visser, G. (2014) even claims that securing financing can be considered the heart of the film industry. It is therefore not surprising that since 2014 there were 15 countries in Europe alone (UK, France, Germany, Hungary, Lithuania, Ireland, Belgium, Croatia, Czech Republic, Malta, Iceland, Poland, Serbia, Romania, and Bulgaria) offering financial schemes for film projects (Olsberg, J. and Barnes, A. 2014).

In the majority of EU countries there are clearly defined incentive systems and tax reliefs supporting both the development of domestic film industry and increasing the attractiveness of those countries for foreign film producers. In the EU since 2000, included as part of the European audio-visual strategy, these systems play an increasingly important role in shaping the development of national cinematographies and co-production. As of the end of 2014, there were 26 different types of tax incentives for audio-visual production in 15 European countries, including five in France alone. Seven of them were introduced in the last four years. In 2014, the new tax incentive systems were introduced by the Netherlands, Lithuania, Macedonia and Slovakia (Olsberg, J. and Barnes, A. 2014, 23–26). Tax incentives introduced in 2010 in the Czech Republic and recently in Croatia brought an immediate dynamic increase in film production expenditure (in the latter

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France

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country by almost 200 per cent a year after the introduction) (Olsberg, J. and Barnes, A. 2014, 34). Tax incentives that support film production are also in force in Belgium, Ireland, Iceland, Luxembourg, Germany, Romania, Hungary, Italy and the United Kingdom. Apart from tax incentives, EU countries use a wide range of support measures for audio-visual production. EU’s Creative Europe program financial plan assumes to allocate 800 million EUR to support EU film projects. Incidentally, the EU film subsidy is only a supplementary source of funding for EU members in addition to the independent national film support mechanisms. It should be noted that depending on the local film support rules and the film project category a national funding mechanism is usually limited to 50 or 75 per cent of the total budget of a film project. In total, Europe provides around 3 billion EUR annually for industry support (European Commission 2013). This funding comes from over 600 national, regional and local programmes. The money is to provide conditions for the dynamic development and consolidation of the audio-visual industry through the creation of production enterprises with a solid foundation and a sustainable resource of human skills and experience. With this support, the EU has become one of the largest producers of films in the world. The EU cinema industry produced 1,299 feature films in 2012 compared to 817 in the US (2011), or 1,255 in India (2011). In 2012, Europe counted 933.3 million cinema admissions. Over one million people are employed in the audio-visual sector in the European Union (European Commission 2013). The support measures mentioned in this paragraph help retain over 373,000 workplaces and sustain 91,000 companies in the EU (Katsarova, I. 2014a).

Conclusions

Globalisation processes and technological change (digitalisation) have created a global film industry and accelerated global competition. Local film industries are forced to undertake necessary reforms if they want to compete successfully. Otherwise they will not be able to attract investment and also lose their talents. Due to historical circumstances and the relatively small local markets, the periphery and semi-periphery, such as most Eastern and Central European countries, have film industries dependent on public subsidies. They subsidise some of the production expenses of domestic producers or are used to attract foreign investment in the form of contract or location shooting. Inward subsidies and other incentives have often been discussed in connection with possible trade distortions and competition between locations that offer the highest level of incentives. However, financial incentives alone without the development of the complementary human resources and related infrastructures are not sufficient to yield local benefits except of short term ones (OECD 2008). For productions that are outsourced to more peripheral locations, arguably the greatest level of economic spin-off is obtained when studio and post-production facilities can be found in these locations too.

In order to keep up with structural changes in the global film industry, the semi-periphery has been adapted by increasing international collaboration, establishing new film studios or modernising old ones, and creating incentives aiming at international investors. However, the EU research reveals that the film industry in the Central and Eastern European region is not entrepreneurial enough. Solutions as co-production, encouraged financially by European subsidies, are used to increase international collaboration. A general analysis of the region reveals that more and more countries are producing cinematic output within international networks. It is worth to note that many of the above-mentioned incentives are not offered by national governments. In North America, for example, both US states and Canadian provinces have considerable independent tax-raising powers, and film and video producers can obtain tax incentives and other subsidies at local and regional levels.
These fiscal incentives can generate intense competition both between and within regions as well as countries. Often individual cities in the same country compete with each other to become attractive as production locations. Locally based schemes are popular and are considered in many cases to have realised returns to local economies that are well in excess of those from similar concessions granted to other types of industries. These new developments reflect the emergence of increasingly global production system in the film industry and an increasing role of peripheries and semi-peripheries in the global creative economy.

REFERENCES


