

Diversity in teams and the success of cultural products

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Received: 19 January 2011 / Accepted: 15 June 2012 / Published online: 9 August 2012
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Abstract This study investigates what is necessary to create successful intercultural motion pictures. We test hypotheses on the effects of (1) the production team and the cast composition (team members' cultural backgrounds, industry tenure, social networks, education, star status, age, and gender) and (2) film characteristics (set locations, movie genre) on the overall performance of German movies at home and abroad. The empirical results demonstrate that offering cultural familiarity (teams from a diverse cultural background, international settings) provides a sense of familiarity to audiences outside the domestic market and enhances the performance of the film abroad. Yet, domestic success depends on different factors. These issues are underexplored because producers can rarely build on systematic research when attempting to customize films to different cultural settings. The paper shows how to target international audiences more effectively.

Keywords Cultural products · Team diversity · Motion picture industry · International performance · New product development

JEL Classification L82 · F14 · L14 · Z11 · D83

Hollywood movies move; European movies linger; Asian ones sit and contemplate (Miller et al. 2001, p. 98).

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1 Introduction

We know that an announcement ‘British Film’ outside a movie theatre will chill the hardiest away from its door (Joseph Schenck, former President of United Artists, as cited in Low et al. 2005, p. 298).

Increased globalization and awareness of consumer ethnography and sociolinguistics have stimulated an interest in the study of the cultural context of consumption (Alden et al. 2006; Douglas and Craig 1997; Stremersch and Tellis 2004). At the same time, interest continues to grow about issues in research and modeling related to cultural and creative industries, the movie industry in particular (De Vany and Walls 1996; Eliashberg and Shugan 1997; Eliashberg et al. 2000, 2009; Ravid 1999). Cultural and creative industries—those involved in the creation, production, and distribution of culture-related goods and services such as film, literature, music, theater, and broadcasting—have recently shown tremendous growth rates worldwide and have been termed “the new global growth industry” (Roodhouse 2004). Such growth holds great promise for producers, but it also raises the economic stakes.

Motion picture projects designed to appeal to both international and domestic markets promise higher profits than productions aimed solely for domestic markets. However, Europeans generally prefer films made by Hollywood instead of those made by other Europeans (Berauer 2005). Although recent German movies such as *The Downfall* (2004) and *The Lives of Others* (2006) have recorded good box office receipts throughout Europe, the market share of German films shown outside Germany is usually marginal (Berauer 2005).

This background prompts us to raise the following questions: How can producers ensure that their films profit from international industry growth? Are there strategies available that can boost a film’s prospects of success in export markets, prior to marketing the final product, at the stage of new product development? Can prospects for export performance be enhanced without jeopardizing domestic returns?

Producers seeking to benefit from the growth potential of domestic and non-domestic markets would have to understand why films perform differently at home than abroad. However, there is little systematic research readily available that attempts to customize movies to different cultural settings (Hennig-Thurau et al. 2004). Movie producers could look at firms that have concentrated their efforts on developing products to meet international demand, but they would find that most available research generally focuses on after production activities (Eliashberg et al. 2000, 2009; Schuiling and Kapferer 2004). In contrast, this study focuses on actions that could be undertaken during production to influence returns. The purpose of this study is to contribute to a more sophisticated understanding of the success factors that affect new motion pictures in an intercultural context.

To do so, the paper integrates three strands of research: the economic approach to motion picture (export) performance (De Vany 2003; De Vany and Walls 1996, 1999, 2002; Elberse and Eliashberg 2003; Eliashberg and Sawhney 1994; Eliashberg et al. 2000, 2009; Hadida 2010; Lee and Bae 2004; Ravid 1999; Walls

2005), the diversity approach to team performance (Horwitz and Horwitz 2007; Lampel and Shamsie 2003; Stewart 2006), and the literature on the management of global brands (Craig et al. 2005; Douglas and Craig 1997; Stremersch and Tellis 2004). The study starts with the premise that movies must provide some cultural familiarity and identification potential to their audiences so that the audiences understand what the film offers. However, at the same time, a successful film must contain enough novel elements to entertain the audience: “Consumers need familiarity to understand what they are offered, but they need novelty to enjoy it” (Lampel et al. 2006, p. 292).

The study also is based on two other premises. First, the composition of the movie crew (the production team and cast) is an important factor because the team members bring different cultural backgrounds, creativity, and talent to the movie creation process. Second, locations and storylines are among the most important characteristics of a film, and in internationally successful productions, they must strike a chord with both domestic and culturally diverse foreign audiences. We expect that a film will be more likely to succeed beyond its home market when it incorporates diversity in these two “input categories” to provide points of reference to audiences. We test our hypotheses on some German movies.

The next section reviews the literature on (international) film performance and team diversity. Then, we develop hypotheses on how team composition and movie characteristics affect a production’s domestic, export, and total success (Section. 3). Section 4 describes data and methods; Section. 5 reports the results. Section 6 forms the conclusion and suggests managerial and research implications.

2 Theoretical background

In 2009, in the EU-27 states, European movies obtained 30 % of the 985 million cinema admissions registered, up from a 23 % share in 2000, as indicated by German Federal Film Board (FFA) data. The outlook for the national motion picture industry has risen throughout Europe. In the 1990s, filmmakers like Luc Besson in France or Sönke Wortmann in Germany started moving into popular genres that were previously considered the preserve of Hollywood (Bergfelder 2005). However, despite their popularity in their respective domestic markets, demand for any European country’s movies in export markets was very limited (Berauer 2005). In 2009, German movies recorded a market share of 27 % in their home market and 4 % in other European markets (FFA data).

Studies exist on the factors that determine a movie’s export performance. For example, political, economic, sociological, and cultural reasons have been cited to explain success,¹ but the data used were drawn almost exclusively from research on American movies (Elberse and Eliashberg 2003; Lee and Bae 2004; Litman 2000). Marvasti and Canterbury (2005) established that cultural variables like education,

¹ Such reasons include governmental promotion of national interests (“strategic trade”), inadequate protectionist and subsidy policies, advantages of a large home market, the prevalence of the English language, or fascination with, for instance, US products (Craig et al. 2005).

religion, and language in export markets influence US movie exports. Ravid (1999) found that the domestic performance of a US film increased for several reasons such as having a big budget, winning an Academy Award, having a lot of reviews, and the rating given the film. However, international success depended solely on the budget and the reviews. There are few studies on what drives the domestic success of German movies, and those few that do exist have produced conflicting results (Hennig-Thurau and Wruck 2000; Jansen 2002, 2005; Meiseberg and Ehrmann 2008), offering little help in identifying criteria that lead to export success.

When trying to define a framework for the international success of a film, the first challenge is to reflect the fact that movies generally serve as an aesthetic or expressive not a utilitarian function (Hirsch 1972). A finished movie is a composite of numerous factors like the storyline, directing, acting, music, and cinematography, and as such is a creation of the cultural context in which it is developed (Craig et al. 2005). Some studies address the assumption of a “cultural discount” factor that refers to a movie’s reduction in value in foreign markets. The reduction occurs because audiences prefer domestic entertainment that reflects their cultural values and uses their native language (Lee 2009; Lee and Bae 2004). Accordingly, the strength of Hollywood movies in Europe has been explained by the “closed textuality” of European films—unlike US films, European films require a “culturally more competent” viewer, which limits the appeal of a movie to foreign audiences (Bergfelder 2005). Thus, the cultural familiarity that a particular movie conveys to foreign audiences is a central determinant of its export success: A lack of familiarity results in low export returns (Lee 2006, 2008, 2009).

We focus on how producers can select movie crews and build characteristics into a production in a way that best enhances its performance prospects. The premise is that there are two input categories for reducing the psychological cost to consumers of paying to watch a foreign movie. The first category is cultural diversity in the movie team. Cultural diversity brings various backgrounds and skills to the table, enhances creative input, and also provides a recognition factor for different audiences (i.e., foreign actors increase interest in the movie in their home markets).² The second input category is the diversity of movie characteristics, such as storylines and sets; for example, a movie shot in various international locations may provide familiarity to different audiences and make global marketing easier. A movie designed with these two input categories in mind can bridge cultural differences and keep down individual psychological costs associated with foreign film consumption. A mastery of such skills in film design would allow producers to devise more successful projects and derive higher profits from global industry growth.

In addition, the academic literature has increasingly emphasized that team diversity is important to team performance (Horwitz and Horwitz 2007). The team member attributes described in the literature that could affect both domestic and international movie success are nationality (as a proxy for cultural background), tenure, social networks, education, star status (star or unknown), and demographic

² The mechanism is supposed to be one where team members have superior knowledge about their home market’s preferences. They can contribute this knowledge to movie creation. Culturally diverse movie elements provide a larger range of recognition factors and thus can be more attractive for foreign audiences than “typically,” for example, German elements alone.

variables. Team diversity enhances creativity and innovation, which are the principle reasons behind cultural industries attracting audiences (Lampel and Shamsie 2003). Moreover, the most prominent members of the movie team—the producer, director, lead actors, and cinematographer—are highly visible and often advertised product “components.” As a result, team diversity also influences consumer perceptions of the final product. Yet, as Guimerà et al. (2005, p. 697) point out, “the right balance of diversity on a team is elusive. Although diversity may potentially spur creativity, it typically promotes conflict and miscommunication. It also runs counter to the security most individuals experience in working and sharing ideas with past collaborators.” Hypotheses on the various positive and negative effects of diversity and film characteristics are presented in the next section. The general hypothesis is:

$$\text{Performance}_{np} = f(\text{Team_Diversity}_n, \text{Film_Characteristics}_n),$$

where n stands for a movie and p for market boundaries (domestic, export, total).

3 Hypotheses

3.1 Team diversity

3.1.1 Culture

Research suggests that team diversity enhances the number of ideas generated to solve a problem as well as the quality of the solutions (Cox et al. 1991; Horwitz and Horwitz 2007; Watson et al. 1993). The benefits of cultural diversity are based on the proposition that different cultures provide diverse skills, views, norms, values, and sociocultural heritage, and that the correlation of the skills of two individuals from the same country is often greater than the correlation between two individuals from different countries (Alderfer and Smith 1982; Craig et al. 2005; Ely and Thomas 2001; Stremersch and Tellis 2004). Lazear (1999) argued that gains arise when skills or knowledge sets are disjointed; that is, when they are culture-specific, are relevant to one another, and can be learned easily by other team members.

The assessment that “Hollywood movies move; European movies linger; Asian ones sit and contemplate” (Miller et al. 2001, p. 98) illustrates the potential of diverse cultural backgrounds in contributing different cultural markers or styles or of certain ways of dramatizing and visualizing stories (Ely and Thomas 2001; Watson et al. 1993). Cultural markers can be expressed through shared meaning, communication styles, dialects, or languages (Bergfelder 2005; Craig et al. 2005; Larkey 1996). Foreign team members who are involved in a production can apply their knowledge of what works best in their home markets to increase the appeal of the movie beyond borders, and in doing so they can increase box office success in export markets. However, any input that *reduces the domestic audience’s familiarity* with the film may adversely affect its domestic returns. One effect may prevail for overall box office performance.

- H1: Cultural diversity in the movie team*
- a) negatively influences the movie's domestic success,*
 - b) positively influences the movie's export success, and*
 - c) influences its total box office performance.*

3.1.2 Industry tenure

The distinction between newcomers and oldtimers is particularly relevant in temporary structures with intended short life spans where teams continually cycle and recycle. Newcomers tend to enhance exploration and innovation and to improve the chances of finding new, creative solutions to tasks (Horwitz and Horwitz 2007; Miller and Shamsie 2001). Oldtimers tend to increase exploitation, inertial behavior, and resistance to new solutions (March 1991). Tenure heterogeneity thus improves the chances that a team will raise reasonable challenges to established practices and avoid status quo commitment. The range of skills and perspectives offered by diverse industry tenure (which is unrelated to cultural diversity) heightens the probability that a team can produce the optimal balance between familiarity and novelty. Mixed teams also may be more appealing to consumers because experienced members offer a recognition factor and fresh faces provide novelty.

- H2: Diversity of tenure in the movie team positively influences the movie's*
- a) domestic success, b) export success, and c) total box office performance.*

3.1.3 Social network ties

In project-based industries, the social structure in terms of network relationships can promote creativity and innovation (Guimerà et al. 2005). Creativity is not only a part of individual talent and experience but also results from social systems whose members amplify or stifle one another's creativity. Creativity aids problem-solving, innovation, and the aesthetics in a movie and is spurred when different ideas unite or creative material in one domain inspires fresh ideas in another (Guimerà et al. 2004). Team members with many social ties have a better chance of encountering new creative ideas—"ties" may be friendships, collaborations, or common memberships (Newman 2001). That is, the social capital available to a movie team, based on contacts with other teams in the industry, helps to avoid the pitfall of "groupthink" and to make the movie more attractive. In this vein, Nobel laureate Linus Pauling, who attributed his creative success not to his intelligence or luck but to his variety of contacts, observed, "The best way to have a good idea is to have a lot of ideas" (as cited in Uzzi and Dunlap 2005, p. 2).

However, the advantages of social structure may hold only to a threshold set by connectivity beyond which they turn into disadvantages because ideas in the network become homogenized. Cohesiveness then leads to sharing common instead of novel ideas (Uzzi and Spiro 2005). High levels of interconnectedness cause individuals to behave as a group rather than a set of individuals (Guimerà et al. 2004). When there are many connections between a person's contacts, creative input is less valuable as others have access to similar input. Hence, blending well-

connected team members with less connected ones who can provide original input increases creative potential. The creative process behind a movie then may benefit from the knowledge and ideas of team members who are not directly influenced by each other. Thus, diversity embodied in the social structure differentiates the movie from its competitors.

H3: Connectivity diversity in the movie team positively influences the movie's a) domestic success, b) export success, and c) total box office performance.

3.1.4 Educational background

Here, education refers to whether team members have any technical or academic film-related education. Heterogeneity in educational backgrounds can foster a broad range of cognitive skills, abilities, and perspectives that can help with problem-solving issues (Horwitz 2005). Bantel and Jackson (1989) found that educational diversity positively influenced innovativeness. Carpenter and Fredrickson (2001) reported that international experience and diverse educational backgrounds were positively related to a firm's global strategic posture, yet broadly different educations could increase task-related debates and staff turnover. However, when reviewing previous research, Mannix and Neale (2005) found that differences in education were more often positively related to performance.

H4: Diversity in educational backgrounds in the movie team positively influences the movie's a) domestic success, b) export success, and c) total box office performance.

3.1.5 Status

As early as 1938, MGM producer Hunt Stromberg stated that the big problem in filmmaking was maintaining the balance between “formula,” meaning giving the public what it wants, and “showmanship,” meaning offering something novel—something truly different (Bordwell et al. 1985). Actors with a considerable fan base (“stars”) satisfy the formula part as they meet a certain set of audience expectations. Rosen (1981) showed that talented individuals can command very large markets. Adler (1985) argued that the more a person knows about the artist (the star), the larger the utility derived from the consumption of the star's service—“the more you know, the more you enjoy.” Stars provide a familiarity that can be used by movie promoters and audiences to assess a movie's attractiveness prior to consumption (Hennig-Thurau et al. 2004). Thus, stars add a quasi-search quality to movies (Albert 1998). Elberse (2007, p. 110) suggested that some may believe “that studios hire better actors if they believe that the movie has a greater chance of success.” However, her results showed that on average, stars are worth approximately \$3 million in theatrical revenues, which is little, relative to total revenues. Ravid (1999, pp. 463–465) put forth that one might argue that informed insiders can “signal” project quality by hiring an expensive star, but found that stars had no effect on the financial success of movies. De Vany and Walls (1999, p. 315) concluded that “No star is ‘bankable’ if bankers or studio executives want sure things.” However, apart

from contributing creative talent and professional performances, stars attract media attention, which promotes their output. They also guarantee premières at major cinemas—something vital in maximizing exposure and gauging demand so that subsequent cinema contracts can be concluded (De Vany and Walls 1999). Nevertheless, according to Stromberg, audiences appreciate well known as well as new faces, thus a diversity of status could enhance success.

H5: Status diversity in the movie team positively influences the movie's a) domestic success, b) export success, and c) total box office performance.

3.1.6 Age

Teams featuring members of various ages can be more appealing as they potentially identify with a broader range of people. From the team dynamic perspective, age diversity may have a negative impact on the members' perceptions of their opportunity to contribute ideas, thereby decreasing the articulation of creativity (Zenger and Lawrence 1989). A range of ages in a team, however, does provide different perspectives and experiences that improve the quality of decision making.

H6: Age diversity in the movie team positively influences the movie's a) domestic success, b) export success, and c) total box office performance.

3.1.7 Gender

Teams composed of both males and females make it easier for individuals to identify with the teams. The team dynamic, however, may be positively or negatively affected because mixed teams can promote harmony or discord. Rogelberg and Rumery (1996) observed that teams with a lone female outperformed all male teams, thus suggesting that gender diversity added to quality. Horwitz (2005) pointed out that there is consensus on the potential of gender diversity because diverse teams are more likely to generate a varied set of approaches to problems.

H7: Gender diversity in the movie team positively influences the movie's a) domestic success, b) export success, and c) total box office performance.

3.2 Movie characteristics

3.2.1 Location

In the silent movie era, it was common to substitute original character names and locations with names and places thought to be more familiar to the target audience (Bergfelder 2005). Today, culturally specific references are frequently exchanged for more or less similar examples from the target context (Bergfelder 2005). Familiarity brought about by setting a film in various international locations could enhance export performance; however, such diverse locations might reduce familiarity to a domestic audience and restrict demand at home.

H8: Location diversity a) negatively influences the movie's domestic success, b) positively influences the movie's export success, and c) influences its total box office performance.

3.2.2 Movie genre

Comedy as a genre tends to be embedded in a culture as humor (i.e., sarcasm, irony, slapstick, ridicule, and situational humor) tends to vary among different cultures (Hennig-Thurau et al. 2004). Palmer (1995) argued that humor is based on a situation of incongruity that often implies a disregard of customs or social rules. Humor requires a situational knowledge of the appropriate, socially expected behavior, making it culturally localized. Thus, the appeal of comedy films may be strongly bound to the domestic culture.

H9: Comedy genre a) positively influences the movie's domestic success, b) negatively influences the movie's export success, and c) influences its total box office performance.

4 Sample, variables, and methods

4.1 Sample

Information derived from 180 films released during 1991–2008 is the source of the data. The starting point is 1991 because the reunification of Germany represents a structural breach in the data. For each year, the top 10 German films, as determined by ticket sales in German cinemas, were selected from the FFA database. Admission figures decline steeply after the top 10 films. Focusing on the top 10 allows choosing films that are “big enough” to be of interest to industry professionals—not only in terms of their potential to make a profit, but particularly, in terms of attendance and public interest. Moreover, a major obstacle for studies on the German movie industry is the lack of data availability for German films. Particularly, information on the cast (e.g., tenure and education), locations, or budgets, is difficult to obtain and is often unavailable for less successful productions. In addition, the Lumière database (the official database on European films' admissions inside and outside the home market) organized by the European Audiovisual Information Desk provides data on admissions starting in 1996. However, even after 1996, many German films behind the top 10 are not listed in the database, or the data are very incomplete. Therefore, we focus on the top 10 films.

Successful movies often get second and third runs in smaller theaters in later years (Berauer 2005), and for that reason, we excluded the most recent films (2007 and 2008 data) from the analysis. The movies produced in 1991–1993 form the initial industry network for the connectivity variable. The hypotheses are tested on those films released in 1994–2006 ($n = 130$). We excluded multinational coproductions from the sample because we were concerned that they might bias the results due to their receiving more widespread publicity in the countries involved in their production.

4.2 Dependent variables

Box office success (in terms of admissions) is used as an objective performance measure.³ The logged variables are labeled DOMESTIC for German admissions (data from the FFA), EXPORT for admissions in European export markets (data from the Lumière database), and TOTAL for domestic and export market admissions combined (FFA and Lumière data).

4.3 Independent and control variables

4.3.1 Culture

We concentrate on each movie's central production team members and cast members (i.e., the producer, the director, the three leading actors, and the cinematographer) to provide a meaningful representation of the crew. Nationality is used as a proxy for cultural identity (data from the Filmportal database and the Internet Movie Database, or IMDb). The variable CULTURE is the Teachman index of diversity in nationalities. When data are categorical or the utility of values is irrelevant, Taagepera and Ray (1977) and Teachman (1980) recommend an entropy-based diversity index to measure heterogeneity, defined as:

$$H = - \sum_{i=1}^S P_i (\ln P_i),$$

where H is the quantitative heterogeneity measure of the system (here, the team), P_i is the probability of finding the system in state i , and S is the number of categories of a dimension on a team (Teachman 1980). The greater the distribution across different categories, the higher the diversity score. For example, for the dimension of "cultural background" on a team, P_i describes the respective fraction of Germans and of foreigners on the team and S describes the nationalities (German and other). That is, if there is one French team member and five Germans, the score is 0.45. If there are two French team members, the score is 0.64. Many teams are made up of Germans only; others include one, two, or rarely three foreign members. Specifically, for a team of six people, four of them German and two French, diversity would be calculated as follows:

$$\text{German background : } (4/6) \times \ln(4/6) = -0.27$$

$$\text{French background : } (2/6) \times \ln(2/6) = -0.37$$

$$\text{Team cultural diversity score : } H = -((-0.27) + (-0.37)) = 0.64.$$

³ Box office returns are highly correlated with revenues from other media; box office performance establishes the film's value for subsequent distribution windows and for licensing, merchandising, and entertainment products (Craig et al. 2005). However, by law, most German films cannot be released on DVD less than 6 months after their theatrical releases, which according to Beier et al. (2005) severely limits German movies' DVD attractiveness and ancillary revenues.

4.3.2 Tenure

TENURE is measured by the years that a team member has been active in the industry since the member's first involvement with a hit movie. Concentrating on the German box office (as a common basis to judge experience because the majority of individuals are Germans) and in line with the literature (Jansen 2002, 2005; Meiseberg et al. 2008), a "hit" is defined as a film with at least 400,000 admissions, a threshold value that only the top 20 % of German films released in 1991–2006 reached. As the Teachman formula best measures categorical data and for consistency in using the same formula, the data are organized in categories (0–3, 4–6, 7–9, 10–12, >12 years).

4.3.3 Connectivity

A network consists of a graph and additional information on its "vertices" (here, team members and movies) or their relationships (Watts 1999). Movies, on the one hand, and team members, on the other hand, are two sets of vertices. An "edge" (an undirected line) is drawn if a person has participated in a particular film thus constituting a vertex pair (i.e., movie A and person B). In network logic, vertices can only be related to vertices in the other set. This structure is also called a "two-mode" network (Watts 1999). We identify all the top 10 German movies that a team member contributed to over time; their count is reflected by the connectivity variable (e.g., when Til Schweiger had a leading part in *Jailbirds* in 1996, he had been a lead actor in three previous German top 10 movies, so his connectivity count for *Jailbirds* is three). The assumption is that individuals establish contacts in their industry particularly through common membership of movie teams (Uzzi and Spiro 2005) and that contacts with members of successful productions are particularly valuable sources of know-how and information. Because the number of previous team memberships centers on zero to four with few individuals having 15 or more previous memberships, categorizing the data seems inappropriate. For interval data, Allison (1978) suggested that the coefficient of variation (a team's standard deviation for connectivity divided by the mean) provides the most direct and scale invariant measure of dispersion. The coefficient is used to define the variable CONNECTIVITY.

4.3.4 Educational background

This measure indicates the extent of the team members' film-related education and whether it was more practical or academic, that is, no education, some education (e.g., apprenticeship), degree, more than one degree. Data were collected from Filmportal, IMDb, and personal homepages. The Teachman variable is EDUCATION.

4.3.5 Status

In line with Jansen (2002, 2005) and Meiseberg et al. (2008), we examine whether (at the time of production) the three leading movie actors are long-term, well-known "celebrities" or if they have starred in a film recording at least 400,000 admissions. This number signifies the top 20 % threshold value for German films released in the

study period. Focusing on the mix of stars and unknown actors in the team, the Teachman variable is STATUS.

4.3.6 Age and gender

Age data for the central team members are organized in categories (≤ 10 , 11–20, 21–30, 31–40, 41–50, 51–60, 61–70, and 71–80; the data are from Filmportal and IMDb). The Teachman variables are AGE and GENDER.

4.3.7 Location diversity and movie genre

The number of locations per movie averages at three, but the standard deviation is 17, thus location diversity is measured using the logged number of countries in which a movie was shot. Data were taken from Filmportal, IMDb, and press releases. The variable is LOCATION. A binary variable indicates if a film belongs to the comedy genre (vs. all other genres; FFA data).

4.3.8 Control variables

Following previous research, controls are movie awards, critics' reviews, movie budget, and the German FSK ratings,⁴ which are similar to the US. Motion Picture Association of America ratings, that is, age restrictions on admission (Bagella and Becchetti 1999; De Vany and Walls 2002; Elberse and Eliashberg 2003; Eliashberg and Shugan 1997; Gemser et al. 2007; Hadida 2010; Holbrook and Addis 2008; Lee 2009; McKenzie 2009; Prag and Casavant 1994; Ravid 1999; Ravid et al. 2006). Films recognized with awards are easier to market and often get second or third runs in cinemas. Information on the number of awards received (we focused on the very important German and the Bavarian Movie Awards rewarding movie quality), AWARDS, was collected from the Web site www.kino.de and IMDb. For the critics' reviews, in Germany, the Filmbewertungsstelle Wiesbaden (FBW; Movie Rating Board Wiesbaden) is an important institution because it awards the "recommended" or the "highly recommended" certificate to signal valuable movie content. The binary variable REVIEWS displays whether a movie holds the (better) "highly recommended" certificate (FBW data). Regarding budget, high budget films can afford well-known and talented personnel, expensive sets, and digital production. Unfortunately, budget data were not publicly available for the sample movies; however, we did obtain budget data for a subsample of 94 films. We collected figures from FFA data, newspapers, magazines, and press releases for 51 of the sample movies. For a third of the sample movies, we acquired budget information directly from industry sources.⁵ In the regressions, we use FSK ratings as dummy variables; the default is

⁴ "Freiwillige Selbstkontrolle der Filmwirtschaft," FSK, "Voluntary Self-Regulation of the Film Industry": FSK 0, no restriction, FSK 6 (12, 16, 18), no one admitted younger than six (12, 16, 18) years.

⁵ Statistical procedures are run once with (Models 1b, 1d) and once without (Models 1a, 1c) the budget variable to safeguard against potential data inaccuracy. Unfortunately, data are not available to split budgets into production and marketing expenditure. We include FSK ratings in Models 1c, 1d, as age

Table 1 Summary of variables

<i>Performance variables</i>	
Domestic Performance	Logged box office success (in terms of admissions) in Germany
Export Performance	Logged box office success (in terms of admissions) in European export markets
Total Performance	Logged box office success (in terms of admissions) in Europe (domestic and export market admissions combined)
<i>Production team and cast composition variables</i>	
Culture	Team members' nationalities; diversity measured by the Teachman index
Tenure	Years that a team member has been active in the industry (0–3, 4–6, 7–9, 10–12, >12 years); diversity measured by the Teachman index
Connectivity	Number of previous memberships in teams that made a hit movie; diversity measured by the coefficient of variation
Education	Extent of film-related education; no education, some education (e.g., apprenticeship), degree, more than one degree; diversity measured by the Teachman index
Status	Stars versus unknown cast members. "Star": leading actor is a long-term, well-known "celebrity" or has starred in a film recording at least 400,000 admissions; diversity measured by the Teachman index
Age	Age categories (≤ 10 , 11–20, 21–30, 31–40, 41–50, 51–60, 61–70, and 71–80); diversity measured by the Teachman index
Gender	Male versus female; diversity measured by the Teachman index
<i>Film characteristics variables</i>	
Location	Logged number of countries in which a movie was shot
Genre	Binary variable; 1–film belongs to the comedy genre, 0–otherwise
<i>Control variables</i>	
Awards	Number of awards a movie received (German and Bavarian Awards)
Reviews	Binary variable; 1–movie obtained the "highly recommended" certificate (Filmbewertungsstelle Wiesbaden), 0–otherwise
Budget	Movie budget in millions of Euros
FSK ratings	Binary variables for FSK 6, FSK 12, and FSK 16; default category: FSK 0

For the status variable, we concentrate on the three leading actors. For all other team variables, we focus on each movie's central production team and cast members (i.e., the producer, the director, the cinematographer, and the three leading actors) to provide a meaningful representation of the crew

FSK 0; no sample movie has FSK 18. The ratings apply only to Germany not to export markets. Table 1 presents a summary of the variables.

4.4 Methods

Lee (2009) and Elberse and Eliashberg (2003) established that there were two ways to handle the available data. Our primary analysis is based on a stepwise ordinary

Footnote 5 continued

restrictions have been significant in previous research (e.g., Ravid 1999); as they turn out to be insignificant here, the models are also run without FSK ratings. Results remain stable.

least squares regression (OLS) and controls for the absence of multicollinearity, homoscedasticity, and the normal distribution of disturbance terms using variance inflation factors (VIFs) and correlations, White and Newey–West tests, and the Kolmogorov–Smirnov test. The performance variables are natural logged.

However, this approach does not consider how distributors choose to release a movie in export markets (Lee 2009). The second approach is to adopt Heckman's (1979) two-stage procedure to account for a possible sample selection bias. In particular, domestic demand could have a signaling function in terms of how attractive a movie is, thereby determining the movie's release and performance abroad. Hence, we apply two-stage least squares regression (2SLS) to examine the robustness of results for export performance. In line with Lee (2009), the relevant analysis is briefly reported after the more detailed reporting of the primary analysis.

5 Results

Tables 2 and 3 show the OLS results. Table 2 presents results for the domestic performance regressions, Table 3 provides estimates for the export and total performance regressions. Team diversity in culture enhances export performance. It does not affect domestic performance, and its effect on total performance is positive. Thus, providing audiences with a culturally diverse crew increases export and total success without jeopardizing domestic success (H1). Tenure and connectivity diversity (H2, H3) increase domestic and total performance without decreasing export performance. Diversity in educational backgrounds marginally influences domestic performance but does not seem too relevant to box office success (H4). Our suggestion was that successful filmmaking needs both scientific knowledge gained by formal education (e.g., about artistically demanding ways of dramatizing and visualizing stories) and creative input that depends on natural talent or on practical, hands-on experience (e.g., acting character roles or having an eye for composing scenes and choosing shots). However, possibly, more formal education in the relevant subject matter is better (although using the average level of education as a control variable does not yield significant results either). We have also tried a geographical education diversity measure, meaning a degree from the United States and a degree from Germany constitutes educational diversity.⁶ However, the number of people in the sample who have a US degree seems largely insufficient for reframing the education diversity variable in a geographical sense.

Although tenure, connectivity, and educational diversity can enhance team creativity, their insignificance for export markets could imply a divergent understanding of what attractive creative solutions actually look like across countries [an example is *Run Lola Run* (1998) that demonstrated an artistic innovation much appreciated in Germany but not abroad]. Enhancing creativity in an “arty” way is an inferior strategy for export success compared to reducing cultural distance by providing diverse cultural references.

⁶ We thank an anonymous reviewer for sharing this idea.

Table 2 Regression results for domestic performance

	Model 0	Model 1a	Model 1b	Model 1c	Model 1d
C	12.849*** (0.236)	12.100*** (0.368)	11.934*** (0.361)	12.093*** (0.367)	11.906*** (0.359)
Culture		0.128 0.024 (0.401)	0.109 0.020 (0.389)	0.082 0.015 (0.398)	0.056 0.010 (0.384)
Tenure		1.184* 0.179* (0.466)	0.944* 0.142* (0.460)	1.325* 0.200* (0.483)	1.056* 0.159* (0.473)
Connectivity		0.919** 0.231** (0.281)	0.891** 0.225** (0.272)	1.019*** 0.257*** (0.282)	0.999*** 0.252*** (0.272)
Education		-0.606 [†] -0.117 [†] (0.325)	-0.583 [†] -0.113 [†] (0.315)	-0.512 [†] -0.099 [†] (0.325)	-0.478 [†] -0.092 [†] (0.313)
Status		0.313 0.071 (0.303)	0.270 0.061 (0.294)	0.389 0.088 (0.310)	0.337 0.076 (0.299)
Age		0.854** 0.203** (0.293)	0.808** 0.192** (0.285)	0.878** 0.209** (0.291)	0.831** 0.197** (0.281)
Gender		-1.340*** -0.232*** (0.366)	-1.115** -0.193** (0.364)	-1.210** -0.209** (0.370)	-0.953** -0.165** (0.366)
Location		-0.022 -0.014 (0.118)	-0.013 -0.008 (0.001)	-0.047 -0.029 (0.118)	-0.010 -0.006 (0.115)
Genre		0.394* 0.120* (0.207)	0.461* 0.140* (0.202)	0.384* 0.117* (0.214)	0.445* 0.135* (0.207)
Awards	0.514*** 0.394*** (0.097)	0.251** 0.193** (0.093)	0.306** 0.234** (0.092)	0.254** 0.195** (0.092)	0.311** 0.239** (0.091)
Reviews	0.974*** 0.282*** (0.263)	0.608** 0.176** (0.252)	0.460** 0.133** (0.250)	0.561** 0.163** (0.251)	0.403** 0.117** (0.247)
Budget	0.060*** 0.257*** (0.016)		0.042** 0.182** (0.015)		0.045** 0.194** (0.014)
FSK 6	0.672* 0.169* (0.311)			0.041 0.010 (0.306)	0.106 0.027 (0.295)

Table 2 continued

	Model 0	Model 1a	Model 1b	Model 1c	Model 1d
FSK 12	-0.099 -0.030 (0.261)			-0.439 -0.134 (0.263)	-0.446 -0.136 (0.254)
FSK 16	-0.189 -0.026 (0.504)			-0.511 -0.071 (0.465)	-0.523 -0.072 (0.448)
<i>F</i>	28.592***	15.938***	16.223***	13.147***	13.858***
<i>R</i> ²	0.245	0.598	0.625	0.615	0.646
Adj. <i>R</i> ²	0.224	0.560	0.586	0.569	0.599

Dependent variable: domestic performance

Significance levels (two-tailed): *** if $p < 0.001$; ** if $p < 0.01$; * if $p < 0.05$; † $p < 0.1$

Status diversity negatively influences export and total success but does not affect domestic success (H5). For export markets, well-known actors seem to be important to signal movie quality: In the sample, the correlation between the number of stars in the cast and export success is 0.377 ($p < 0.01$). When including the number of stars in the cast in the regression, the coefficient is 0.252 ($p < 0.01$, Model 2b). The same result holds for a binary status variable (value of 1 if there is at least one star in the cast); there are positive effects of star power on export performance (coefficient of 1.049, $p < 0.01$, Model 2b), and no effects on domestic performance (positive, but insignificant coefficient of 0.053, $p < 0.821$, Model 1d; no significant effect for total performance either). Thus, stars can reduce the psychological costs of foreign movie consumption. Although the idea that the star system does not seem to be relevant in Europe has been supported for domestic film performance (Delmestri et al. 2005; Meiseberg et al. 2008), it does not necessarily apply across borders. This finding complements Elberse's (2007) results that show interdependencies between the qualities of individual contributions to movie projects; in this case, the stronger a cast's track record of box office success is, the greater the foreign movie returns. The finding also extends Desai and Basuroy's (2005) results, which showed that for *less familiar genre movies*, star power had more of an impact on the movie's performance, to movies coming from *less familiar cultural contexts*. The implication is that it is better for producers to cast popular stars despite higher costs as a "formula" ingredient because audiences do not reward "showmanship" experiments.

Age diversity enhances domestic and total performance (H6). Many family entertainment films employ stars spanning the generations and the genre is usually popular (Hennig-Thurau et al. 2004; Lee 2006, 2008). The effect of gender diversity is negative (H7). In the sample, mixed gender movies often belong to the drama genre, which is known to be less appealing to entertainment-seeking German audiences (Jansen 2002) and to suffer from relatively high levels of cultural discount (Lee 2006, 2008).

Location diversity enhances export success and total performance (H8). Results for export performance stay the same if using a variable that is not logged and

Table 3 Regression results for export and total performance

	Model 2a	Model 2b	Model 3a	Model 3b
<i>C</i>	12.162*** (0.598)	11.999*** (0.601)	12.209*** (0.683)	11.057*** (0.997)
<i>Culture</i>	2.776*** 0.312*** (0.651)	2.756*** 0.309*** (0.646)	1.664** 0.204** (0.706)	2.031** 0.230** (1.233)
<i>Tenure</i>	0.473 0.043 (0.758)	0.238 0.022 (0.764)	2.280** 0.228** (0.819)	2.887* 0.230* (1.233)
<i>Connectivity</i>	0.648 0.099 (0.456)	0.621 0.095 (0.453)	0.840 [†] 0.138 [†] (0.465)	0.589 [†] 0.074 [†] (0.678)
<i>Education</i>	0.354 0.042 (0.528)	0.376 0.044 (0.524)	0.298 0.039 (0.549)	0.391 0.039 (0.800)
<i>Status</i>	-3.176*** -0.436*** (0.492)	-3.218*** -0.442*** (0.489)	-1.765** -0.263** (0.549)	-1.856*** -0.239*** (0.801)
<i>Age</i>	0.187 0.027 (0.477)	0.143 0.021 (0.473)	0.730* 0.102* (0.545)	0.655* 0.082* (0.678)
<i>Gender</i>	-0.469 -0.049 (0.595)	-0.249 -0.026 (0.604)	-1.739** -0.200** (0.650)	-2.219 [†] -0.203 [†] (0.969)
<i>Location</i>	0.576** 0.219** (0.192)	0.543** 0.206** (0.191)	0.453* 0.189* (0.207)	0.392 [†] 0.152 [†] (0.283)
<i>Genre</i>	0.163 0.030 (0.336)	0.227 0.042 (0.336)	0.235 0.048 (0.353)	0.916 0.144 (0.487)
<i>Awards</i>	0.013 0.006 (0.151)	0.040 0.019 (0.153)	0.050 0.024 (0.165)	0.033 0.013 (0.236)
<i>Reviews</i>	0.118 0.021 (0.409)	0.027 0.005 (0.415)	0.417 0.080 (0.409)	0.455 0.070 (0.628)
<i>Budget</i>		0.041 [†] 0.108 [†] (0.024)		0.067*** 0.216*** (0.027)
<i>F</i>	16.618***	15.714***	11.436***	10.600***

Table 3 continued

	Model 2a	Model 2b	Model 3a	Model 3b
R^2	0.608	0.617	0.512	0.536
Adj. R^2	0.571	0.578	0.472	0.489

Dependent variable in models 2a, 2b: export performance

Dependent variable in models 3a, 3b: total performance

Significance levels (two-tailed): *** if $p < 0.001$; ** if $p < 0.01$; * if $p < 0.05$; † $p < 0.1$

significance decreases slightly for total performance (10 % level). Along with the positive impact of cultural diversity in the team, the latter result strongly supports the proposition that movies incorporating different features better meet the demands of diverse audiences. The second variable for film characteristics, movie genre, is insignificant for foreign market success (H9). Although Lee (2006, 2008) found that Hollywood comedies in Asian markets suffered from a cultural discount that was relatively higher than the discount for movies of other genres, the failure to export German comedies successfully may be caused by low production values, ineffective marketing, or inadequate exhibition windows more than by the genre's cultural specificity. Summarizing these findings, the study's results support the finding that producers can push market success when they blend familiar and novel elements.

The control variable AWARDS is positively significant in the domestic market. De Vany and Walls (1996) and Eliashberg and Shugan (1997) argued that critics may influence success by encouraging or discouraging consumers to watch certain movies. The importance of REVIEWS on a domestic scale replicates Ravid's (1999) findings. The unimportance of reviews for exports may be explained by the fact that the FBW certificates are not well-known abroad and have little signaling effect. Lee (2009) also suggested that movie qualities and achievement indicated by domestic praise do not always "sell," but instead different types of cinematic qualities and achievement may or may not have significant appeal to foreign audiences. Ravid (1999) showed that big budgets signal high movie revenues (although they do not necessarily contribute to profitability). Here, budgets are significant across markets as well. This finding is in line with Elberse and Eliashberg (2003), who found support for their hypothesized relationship between a movie's budget and the behavior of audiences, although compared with previous empirical research and our cross-cultural results, their study assigned a relatively small role to this determinant.⁷

Focusing on movie rankings, Ravid and Basuroy (2004) argued that part of the reason why R-rated films appeared to be "overproduced" was that they translated

⁷ Because the number of both movies and team members that have received international awards (Cannes, Venice, etc.) is very small, international awards are not included in the analysis. We also controlled for release year, season, events such as European soccer tournaments and the Olympics, which might draw attention away from the cinemas, the number of German movies in the market, German movie exports, and US movie imports (as proxies for competition), sequels, the size of the production company, the initial distributor, the movie duration in minutes; and for home success only, for GDP, population, number of screens and multiplexes, movie ticket prices, and competition from illegal downloads, that is, piracy behavior of consumers (no significant results).

well into other cultures. In particular, sex and violence are low-risk attributes to invest in because they have audience appeal across a wide range of film export markets (Ravid and Basuroy 2004). Thus, much of the economic “action” is either in movies that portray graphic violence or that include both sex and violence (Ravid and Basuroy 2004). As a proxy for such content, we also controlled for FSK ratings and additional genres (Desai and Basuroy 2005). Higher FSK ratings (12, 16) negatively correlate with domestic success, which supports De Vany and Walls’s (2002) finding that producers might trim their (domestic) “downside” risk while increasing their “upside” possibilities by shifting production dollars out of R-rated movies into movies where admission is less restricted. In line with previous research (Jansen 2002; Meiseberg et al. 2008), we observe that family films enhance domestic returns, whereas dramas decrease domestic returns. However, we do not find matching effects on export performance. The absence of effects may come from the fact that film ratings and genre classifications may vary across countries. As ratings express a culture’s attitude toward movie elements such as violence and sex, movies can be rated differently across countries (Hennig-Thurau et al. 2004; Lee 2008). Hennig-Thurau et al. (2004) also argued that genres are not objective dimensions but culture-specific, dynamic, modifiable envelopes. Additionally, audiences may expect more exciting content in US films anyway, so these elements are not rewarded in (comparably, low budget) European films.

The strongest influence exerted by the independent variables on export success comes from diversity in location, culture, and star status (standardized coefficients of 0.206, 0.309, and -0.442 , Model 2b). Yet, if domestic box office success had a signaling function for export markets, domestic demand would be an explanatory variable for export success (Elberse and Eliashberg 2003; Hennig-Thurau et al. 2004). Potential simultaneity issues would arise because the other independent variables that affect export performance could be expected to affect domestic performance as well. Then, OLS would lead to inconsistent coefficient estimates. Following Lee (2009), we applied Heckman’s (1979) two-stage procedure to counter this issue. Domestic box office success is estimated based on the independent variables (we do not include FSK ratings here due to their insignificance). The estimated values for domestic success are then used in the second stage of the regression (Maddala 2001; Shamsie et al. 2009). “Awards” and “reviews” are used as instrumental variables. These variables fulfill the criteria of being relevant and exogenous (Maddala 2001), as they are well-known indicators for movie attractiveness for domestic audiences; however, they do not directly influence a movie’s performance in export markets that obviously rely more on their own quality assessment institutions.⁸ In the first stage of the equation, 2SLS results do not show differences compared with the results in Models 1a or 1b. In the second stage, 2SLS results are identical to Model 2a and 2b results as regards signs and significance levels for diversity in the team; location is positive and significant (1 % level), and status diversity again has a negative impact (1 % level) on export success

⁸ The first stage equation is $\text{Domestic_Performance}_n = g(\text{Team_Diversity}_n, \text{Film_Characteristics}_n)$, where n stands for a movie; the second stage equation is $\text{Export_Performance}_n = h(\text{Domestic_Performance}_n, \text{Team_Diversity}_n, \text{Film_Characteristics}_n)$. $\text{Domestic_Performance}_n$ is the estimated value from the first regression.

Table 4 Regression results for the second stage equation (2SLS)

	Model 4a	Model 4b
<i>C</i>	11.369*** (3.328)	10.997*** (3.001)
Domestic performance	0.067 0.039 (0.269)	0.085 0.050 (0.245)
Culture	2.782*** 0.294*** (0.563)	2.732*** 0.288*** (0.552)
Tenure	0.365 0.032 (1.035)	0.178 0.016 (1.033)
Connectivity	0.608 0.087 (0.603)	0.529 0.076 (0.541)
Education	0.402 0.045 (0.551)	0.443 0.049 (0.554)
Status	-3.195*** -0.412*** (0.832)	-3.240*** -0.418*** (0.832)
Age	0.121 0.016 (0.516)	0.070 0.010 (0.489)
Gender	-0.391 -0.039 (0.729)	-0.164 -0.016 (0.653)
Location	0.572*** 0.206*** (0.152)	0.538*** 0.194*** (0.153)
Genre	0.130 0.023 (0.341)	0.182 0.032 (0.339)
Budget		0.037 [†] 0.119 [†] (0.018)
<i>F</i>	18.664***	17.506***
<i>R</i> ²	0.613	0.622
Adj. <i>R</i> ²	0.580	0.587

“Awards” and “reviews” are used as instrumental variables

Dependent variable: export performance

Significance levels (two-tailed):

*** if $p < 0.001$; ** if $p < 0.01$; * if $p < 0.05$;

[†] $p < 0.1$

(see Table 4). However, the results indicate that domestic success does *not* have a significant impact on export success. This finding is in line with Lee (2006) who noted that the domestic success of a media product is a useful predictor of its

Table 5 Descriptive statistics and correlations

Variables	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Domestic performance	14.116	1.699	1.000							
(2) Export performance	13.302	2.870	0.268*	1.000						
(3) Total performance	14.364	2.564	0.588***	0.824***	1.000					
(4) Culture	0.318	0.303	0.040	0.622***	0.477***	1.000				
(5) Tenure	0.456	0.249	0.389***	0.340*	0.488***	0.098	1.000			
(6) Connectivity	0.625	0.413	0.543***	0.024	0.214*	-0.103	0.245**	1.000		
(7) Education	0.296	0.318	-0.228*	0.155	0.122	0.178	0.056	-0.086	1.000	
(8) Status	0.309	0.370	0.006	-0.655***	-0.481***	-0.333***	0.338***	0.094	-0.043	1.000
(9) Age	0.935	0.389	0.541***	0.015	0.236*	0.009	0.141	0.410***	-0.074	0.157†
(10) Gender	0.342	0.283	-0.329**	-0.240*	-0.349***	-0.156†	-0.102	0.059	0.050	0.179**
(11) Location	0.666	1.033	0.031	0.560***	0.468***	0.558***	0.171*	-0.136	0.186*	-0.323**
(12) Genre			0.215*	0.033	0.104	-0.088	0.326***	0.113	0.102	0.015
(13) Awards	0.729	1.261	0.541***	0.120	0.245**	0.028	0.271**	0.276**	-0.225*	-0.084
(14) Reviews			0.534***	0.170	0.293**	0.141	0.129	0.399***	-0.211*	-0.052
(15) Budget	6.423	9.265	0.351**	0.257*	0.466***	0.186	0.223†	0.133	-0.024	-0.090
(16) FSK 0			-0.100	0.025	-0.099	0.032	-0.336***	-0.171†	-0.114	-0.136
(17) FSK 6			0.204*	0.024	0.152	0.039	0.159†	-0.055	-0.060	0.008
(18) FSK 12			-0.034	-0.065	-0.042	-0.077	0.176*	0.156†	0.159†	0.117
(19) FSK 16			-0.084	0.048	0.020	0.037	-0.014	0.092	-0.017	-0.005
Variables	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) Domestic performance										
(2) Export performance										
(3) Total performance										
(4) Culture										

Table 5 continued

Variables	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(5) Tenure										
(6) Connectivity										
(7) Education										
(8) Status										
(9) Age	1.000									
(10) Gender	-0.003	1.000								
(11) Location	-0.112	-0.238**	1.000							
(12) Genre	0.057	0.044	0.027	1.000						
(13) Awards	0.378***	-0.217*	-0.013	0.067	1.000					
(14) Reviews	0.357***	-0.215*	0.054	0.000	0.442***	1.000				
(15) Budget	0.101	-0.328**	0.210 [†]	-0.091	-0.002	0.319**	1.000			
(16) FSK 0	-0.127	-0.039	-0.100	-0.304***	-0.104	0.042	-0.011	1.000		
(17) FSK 6	0.009	-0.162 [†]	0.082	0.189*	-0.099	0.021	-0.056	-0.318***	1.000	
(18) FSK 12	0.090	-0.092	0.038	-0.188*	0.037	-0.043	0.057	-0.562***	-0.485***	1.000
(19) FSK 16	0.035	0.168 [†]	-0.032	-0.172 [†]	-0.057	-0.027	0.001	-0.145	-0.125	-0.221*

Awards and reviews both reward valuable movie content, therefore the variables' correlation is relatively high

Significance levels (two-tailed): [†] if $p < 0.10$; * if $p < 0.05$; ** if $p < 0.01$; *** if $p < 0.001$. $N = 130$. Performance and location variables were natural logged. Budget in millions of Euros

international success only to a certain extent. The 2SLS results and also the Hausman test (Maddala 2001) indicate that the reported OLS results are robust. Table 5 shows descriptive statistics and correlations.

6 Conclusion

Following Lee (2006, 2008), we found that reducing the cultural specificity of a production can indeed enhance its performance in the world market—not only for US films but for European media entertainment as well. Our results offer some implications. First, although some research has addressed how firms modify advertising and brand strategies in individual countries (Cayla and Eckhardt 2008; Schuiling and Kapferer 2004), adopting a comprehensive cross-cultural orientation *from the very first stages of new product development* is decisive for products that will be marketed internationally. Today, European movies are often remade by Hollywood (e.g., *Millennium Trilogy*, forthcoming) to overcome “not the language problem, but more a cultural one;” for example, a US audience prefers “to be shown, told more” and films that are “more traditional in structure” (Lofficier 1998). Thus, producers must accumulate resources and capabilities that maximize returns prior to production and effectively combine them later on. As the lifecycle of motion pictures is extremely short, there is no second chance to adjust to culture-specific preferences, irrespective of the modification potential of marketing strategies. Second, recent research has pointed to the lack of actual research on consumer responses to “local” (i.e., domestic) products making “global” (or at least, cross-cultural) adaptations. Further inquiries show that in the sample, French cast members significantly enhance the success of imported films in France. The same effect holds for Poland but not for Britain, Italy, or Spain. Yet, all the latter markets still prefer mixed-nationality crews to all-German productions. Thus, preferences for global versus local elements vary substantially across markets. Third, as strong project elements (lead cast, director) are an important lure for attracting financiers (Squires 2005), the results also have implications for movie financing. However, simply assembling individuals into teams and anticipating superior performance is clearly a flawed plan; utilizing varied skills and knowledge may at times require considerable managerial intervention. The positive effects of diversity on film performance also are conditional upon the specific attributes in question. Moreover, our research has several limitations; for example, the cross-sectional, one-country approach does not allow us to understand time-based dynamics or to make comparisons across productions originating in different countries. Future research could explore cross-cultural strategies in more detail to help establish a “safer bet.”

References

- Adler, M. (1985). Stardom and talent. *American Economic Review*, 75, 208–212.
- Albert, S. (1998). Movie stars and the distribution of financially successful films in the motion picture industry. *Journal of Cultural Economics*, 22, 249–270.
- Alden, D. L., Steenkamp, J. B. E. M., & Batra, R. (2006). Consumer attitudes toward marketplace globalization: structure, antecedents, and consequences. *International Journal of Research in Marketing*, 23, 227–239.

- Alderfer, C. P., & Smith, K. K. (1982). Studying intergroup relations embedded in organizations. *Administrative Science Quarterly*, 27, 35–65.
- Allison, P. D. (1978). Measures of inequality. *American Sociological Review*, 43, 865–880.
- Bagella, M., & Becchetti, L. (1999). The determinants of motion picture box office performance: Evidence from movies produced in Italy. *Journal of Cultural Economics*, 23, 237–256.
- Bantel, K. A., & Jackson, S. E. (1989). Top management and innovations in banking: Does the composition of the top team make a difference? *Strategic Management Journal*, 10, 107–124.
- Beier, L. O., Schulz, S., & Wolf, M. (2005). *Goldrausch mit Silberlingen*. Retrieved July 21, 2011, from <http://www.spiegel.de/spiegel/print/d-40712974.html>.
- Berauer, W. (2005). *Filmstatistisches Jahrbuch*. Baden-Baden: Nomos.
- Bergfelder, T. (2005). National, transnational or supranational cinema? Rethinking European film studies. *Media, Culture and Society*, 27, 315–331.
- Bordwell, D., Staiger, J., & Thompson, K. (1985). *The classical Hollywood cinema: Film style and mode of production to 1960*. London: Routledge.
- Carpenter, M. A., & Fredrickson, J. W. (2001). Top management teams, global strategic posture, and the moderating role of uncertainty. *Academy of Management Journal*, 44, 533–545.
- Cayla, J., & Eckhardt, G. M. (2008). Asian brands and the shaping of a transnational imagined community. *Journal of Consumer Research*, 35, 216–230.
- Cox, T. H., Jr, Lobel, S. A., & McLeod, P. L. (1991). Effects of ethnic group cultural differences on cooperative and competitive behavior on a group task. *Academy of Management Journal*, 34, 827–847.
- Craig, C. S., Greene, W. H., & Douglas, S. P. (2005). Culture matters: Consumer acceptance of U.S. films in foreign markets. *Journal of International Marketing*, 13, 80–103.
- De Vany, A. (2003). *Hollywood economics: How extreme uncertainty shapes the film industry*. London: Routledge.
- De Vany, A., & Walls, W. D. (1996). Bose–Einstein dynamics and adaptive contracting in the motion picture industry. *Economic Journal*, 106, 1493–1514.
- De Vany, A., & Walls, W. D. (1999). Uncertainty in the movie industry: Does star power reduce the terror of the box office? *Journal of Cultural Economics*, 23, 285–318.
- De Vany, A., & Walls, W. D. (2002). Does Hollywood make too many R-rated movies? Risk, stochastic dominance, and the illusion of expectation. *Journal of Business*, 75, 425–451.
- Delmestri, G., Montanari, F., & Usai, A. (2005). Reputation and strength of ties in predicting commercial success and artistic merit of independents in the Italian feature film industry. *Journal of Management Studies*, 42, 975–1002.
- Desai, K. K., & Basuroy, S. (2005). Interactive influence of genre familiarity, star power, and critics' reviews in the cultural goods industry: The case of motion pictures. *Psychology & Marketing*, 22, 203–223.
- Douglas, S. P., & Craig, C. S. (1997). The changing dynamic of consumer behavior: Implications for cross-cultural research. *International Journal of Research in Marketing*, 14, 379–395.
- Elberse, A. (2007). The power of stars: Do star actors drive the success of movies? *Journal of Marketing*, 71, 102–120.
- Elberse, A., & Eliashberg, J. (2003). Demand and supply dynamics for sequentially released products in international markets: The case of motion pictures. *Marketing Science*, 22, 329–354.
- Eliashberg, J., Hegie, Q., Ho, J., Huisman, D., Miller, S. J., Swami, S., et al. (2009). Demand-driven scheduling of movies in a multiplex. *International Journal of Research in Marketing*, 26, 75–88.
- Eliashberg, J., Jonker, J. J., Sawhney, M. S., & Wierenga, B. (2000). Moviemod: An implementable decision-support system for prerelease market evaluation of motion pictures. *Marketing Science*, 19, 226–243.
- Eliashberg, J., & Sawhney, M. S. (1994). Modeling goes to Hollywood: Predicting individual differences in movie enjoyment. *Management Science*, 40, 1151–1173.
- Eliashberg, J., & Shugan, S. M. (1997). Film critics: Influencers or predictors? *Journal of Marketing*, 61, 68–78.
- Ely, R. J., & Thomas, D. A. (2001). Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly*, 46, 229–273.
- Gemser, G., van Oostrum, M., & Leenders, M. (2007). The impact of film reviews on the box office performance of art house versus mainstream motion pictures. *Journal of Cultural Economics*, 31, 43–63.

- Guimerà, R., Uzzi, B., Spiro, J., & Nunes Amaral, L. (2004). *The assembly of creative teams and the emergence of the “invisible college”*. Working Paper, Northwestern University.
- Guimerà, R., Uzzi, B., Spiro, J., & Nunes Amaral, L. (2005). Team assembly mechanisms determine collaboration network structure and team performance. *Science*, 308, 697–702.
- Hadida, A. L. (2010). Commercial success and artistic recognition of motion picture projects. *Journal of Cultural Economics*, 34, 45–80.
- Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica*, 47, 153–161.
- Hennig-Thurau, T., Walsh, G., & Bode, M. (2004). Exporting media products: Understanding the success and failure of Hollywood movies in Germany. *Advances in Consumer Research*, 31, 633–638.
- Hennig-Thurau, T., & Wruck, O. (2000). Warum wir ins Kino gehen: Erfolgsfaktoren von Kinofilmen. *Marketing ZFP*, 22, 241–258.
- Hirsch, P. (1972). Processing fads and fashions: An organization-set analysis of cultural industry systems. *American Journal of Sociology*, 77, 639–659.
- Holbrook, M. B., & Addis, M. (2008). Art versus commerce in the movie industry: A two-path model of motion-picture success. *Journal of Cultural Economics*, 32, 87–107.
- Horwitz, S. K. (2005). The compositional impact of team diversity on performance: Theoretical considerations. *Human Resource Development Review*, 4, 219–245.
- Horwitz, S. K., & Horwitz, I. B. (2007). The effects of team diversity on team outcomes: A meta-analytic review of team demography. *Journal of Management*, 33, 987–1015.
- Jansen, C. (2002). *The German motion picture industry*. Dissertation, Wirtschaftswissenschaftliche Fakultät, Humboldt-Universität, Berlin.
- Jansen, C. (2005). The performance of German motion pictures, profits and subsidies: Some empirical evidence. *Journal of Cultural Economics*, 29, 191–212.
- Lampel, J., & Shamsie, J. (2003). Capabilities in motion: New organizational forms and the reshaping of the Hollywood movie industry. *Journal of Management Studies*, 40, 2189–2210.
- Lampel, J., Shamsie, J., & Lant, T. K. (2006). Toward a deeper understanding of cultural industries. In J. Lampel, J. Shamsie, & T. K. Lant (Eds.), *The business of culture: Strategic perspectives on entertainment and media* (pp. 3–14). Mahwah, NJ: Lawrence Erlbaum.
- Larkey, L. K. (1996). Toward a theory of communicative interactions in culturally diverse work-groups. *Academy of Management Review*, 21, 463–491.
- Lazear, E. P. (1999). Globalisation and the market for team mates. *Economic Journal*, 109, C15–C40.
- Lee, F. L. F. (2006). Cultural discount and cross-culture predictability: Examining the box office performance of American movies in Hong Kong. *Journal of Media Economics*, 19, 259–278.
- Lee, F. L. F. (2008). Hollywood movies in East Asia: Examining cultural discount and performance predictability at the box office. *Asian Journal of Communication*, 18, 117–136.
- Lee, F. L. F. (2009). Cultural discount of cinematic achievement: The academy awards and U.S. movies’ East Asian box office. *Journal of Cultural Economics*, 33, 239–263.
- Lee, B., & Bae, H.-S. (2004). The effect of screen quotas on the self-sufficiency ratio in recent domestic film markets. *Journal of Media Economics*, 17, 163–176.
- Litman, B. R. (2000). The structure of the film industry – Windows of exhibition. In A. N. Greco (Ed.), *The media and entertainment industries: Reading in mass communications* (pp. 99–121). Boston, MA: Allyn & Bacon.
- Lofficier, R. (1998). *Remake ... American style*. Retrieved June 10, 2010, from <http://www.lofficier.com/wgaarticle.htm>.
- Low, R., Richards, J., & Manvell, R. (2005). *The history of British film*. London: Routledge.
- Maddala, G. S. (2001). *Introduction to econometrics* (3rd ed.). New York: Wiley.
- Mannix, E., & Neale, M. A. (2005). What differences make a difference? The promise and reality of diverse teams in organizations. *Psychological Science in the Public Interest*, 6, 31–55.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2, 71–87.
- Marvasti, A., & Canterbury, E. R. (2005). Cultural and other barriers to motion pictures trade. *Economic Inquiry*, 43, 39–54.
- McKenzie, J. (2009). Revealed word-of-mouth demand and adaptive supply: Survival of motion pictures at the Australian box office. *Journal of Cultural Economics*, 33, 279–299.
- Meiseberg, B., & Ehrmann, T. (2008). Performance implications of network structure, resource investment, and competition in the German motion picture industry. In G. Hendrikse, M. Tuunanen, J. Windsperger, & G. Cliquet (Eds.), *Strategy and governance of networks: Cooperatives,*

- franchising, and strategic alliances—contributions to management science (pp. 347–372). Heidelberg/New York: Physica Verlag.
- Meiseberg, B., Ehrmann, T., & Dormann, J. (2008). We don't need another hero—Implications from network structure and resource commitment for movie performance. *Schmalenbach Business Review*, 60, 74–98.
- Miller, T., Govil, N., McMurria, J., & Maxwell, R. (2001). *Global Hollywood*. London: British Film Institute.
- Miller, D., & Shamsie, J. (2001). Learning across the life cycle: Experimentation and performance among the Hollywood studio heads. *Strategic Management Journal*, 22, 725–745.
- Newman, M. E. J. (2001). Who is the best connected scientist? A study of scientific coauthorship networks. *Physical Review E*, 64, 1–17.
- Palmer, J. (1995). *Taking humour seriously*. London: Routledge.
- Prag, J., & Casavant, J. (1994). An empirical study of the determinants of revenues and marketing expenditures in the motion picture industry. *Journal of Cultural Economics*, 18, 217–235.
- Ravid, S. A. (1999). Information, blockbusters, and stars: A study of the film industry. *Journal of Business*, 72, 463–492.
- Ravid, S. A., & Basuroy, S. (2004). Managerial objectives, the R-rating puzzle, and the production of violent films. *Journal of Business*, 77, 155–192.
- Ravid, S. A., Wald, J. K., & Basuroy, S. (2006). Distributors and film critics: Does it take two to Tango? *Journal of Cultural Economics*, 30, 201–218.
- Rogelberg, S. G., & Rumery, S. M. (1996). Gender diversity, team decision quality, time on task, and interpersonal cohesion. *Small Group Research*, 27, 79–90.
- Roodhouse, S. (2004). The new global growth industry: Definitional problems in the creative industries—a practical approach. In S. Roodhouse & C. Kelly (Eds.), *Counting culture, practical challenges for the museum and heritage sector (chapter 2)*. London: Greenwich University Press.
- Rosen, S. (1981). The economics of superstars. *American Economic Review*, 71, 845–858.
- Schuiling, I., & Kapferer, J. N. (2004). Real differences between local and international brands: Strategic implications for international marketers. *Journal of International Marketing*, 12, 97–112.
- Shamsie, J., Martin, X., & Miller, D. (2009). In with the old, in with the new: Capabilities, strategies, and performance among the Hollywood studios. *Strategic Management Journal*, 30, 1440–1452.
- Squires, P. (2005). Film finance: the funding options. *Accountancy Ireland*, 37, 80–82.
- Stewart, G. L. (2006). A meta-analytic review of relationships between team design features and team performance. *Journal of Management*, 32, 29–55.
- Stremersch, S., & Tellis, G. J. (2004). Understanding and managing international growth of new products. *International Journal of Research in Marketing*, 21, 421–438.
- Taagepera, R., & Ray, J. L. (1977). A generalized index of concentration. *Sociological Methods & Research*, 5, 367–384.
- Teachman, J. D. (1980). Analysis of population diversity. *Sociological Methods & Research*, 8, 341–362.
- Uzzi, B., & Dunlap, S. (2005). How to build your network. *Harvard Business Review*, 83, 2–11.
- Uzzi, B., & Spiro, J. (2005). Collaboration and creativity: The small world problem. *American Journal of Sociology*, 111, 447–504.
- Walls, D. W. (2005). Modeling movie success when 'nobody knows anything': Conditional stable-distribution analysis of film returns. *Journal of Cultural Economics*, 29, 177–190.
- Watson, W. E., Kumar, K., & Michaelsen, L. K. (1993). Cultural diversity's impact on interaction process and performance: Comparing homogeneous and diverse task groups. *Academy of Management Journal*, 36, 590–602.
- Watts, D. J. (1999). *Small worlds: The dynamics of networks between order and randomness*. Princeton, NJ: Princeton University Press.
- Zenger, T. R., & Lawrence, B. S. (1989). Organizational demography: The differential effects of age and tenure distributions on technical communication. *Academy of Management Journal*, 32, 353–376.