Production Management in Media and Information

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3.1 Media Production

3.1.1 Introduction

The media sector has three legs: content, distribution and devices. In this chapter, we will address content, its production and, specifically, the following questions:

- What are the ingredients of successful content production?
- How is content production being organized on an industrial scale?
- What management tools can be applied to media production?

When it comes to media content—movies, TV shows, music, books, newspapers—it seems that everybody is an expert. It has surrounded us since birth individually and infused our culture collectively. Media content is not merely art and entertainment. It is also a worldwide role model, a trendsetter and moodsetter. Media content exerts influence on our values, our attitudes, our politics and our lifestyles. It is the subject of intense public fascination and scrutiny. It is also an industry and, for the USA, among the largest export businesses.

Creativity is thought of as an individual activity, but it has become an organized business and social activity. Film, theater, opera and software development are all the result of highly organized collaboration and teamwork. Creative content is being created on an industrial scale—the "Dream Factory." It is a complex process.

3.1.2 Content Production

Production management aims at a smooth and continuous flow of production. It must allocate resources to different activities. It aims to increase productivity. And it must have a system in place to measure and evaluate performance. Production activities in companies are often headed by the Chief Operations Officer (COO). The responsibilities of production management include: purchasing, inventories, and supply chain; process engineering; production scheduling and capacity planning; subcontracting; and locational choices. A sub-set is project management, which tends to be more limited in scope and time.

3.1.3 Special Characteristics in Content Production

The basic stages of content production are similar to those of production more generally. Typically, production requires the following steps:

- Market analysis;
- Concept creation;
- Selection;
- Funding;
- Product design;
- Development;
- Production planning;
- Procurement and deployment of inputs;
- Production and assembly;
- Post-production improvements and quality control;
- Preparation for distribution.

Each of these steps also exists for content production. However, there are indeed differences, as we discussed in ▶ Chap. 2 The Information Environment. These include:

- An unusually high level of *uncertainty* about the commercial success of content products.
- Extremely high fixed production costs and low reproduction costs. They require significant upfront capital to make the initial product. This means unusually high *economies of scale*, which are further increased by *network effects:* the users of a product partially increase the value of that product to other users.
- There often exist content producers who do *not aim to maximize profit*, which affects the nature of competition.
- Media content often has *public good* characteristics: its value goes beyond the immediate benefits to the producers, and it is often impractical to exclude non-payers from enjoying the content.

We will discuss, in particular, the film industry, as it has always been the most commercialized of content media, with dynamics that has often foretold those of other media. In order to understand the success factors for content production, we will explore why one particular content production center—Hollywood—has been so successful, for so long, in so many countries and, potentially, now the Internet. This is despite the fact that Hollywood is a high-cost producer and that it has usually lacked a long-term strategic vision (e.g. it

initially totally missed the significance of broadcast TV, cable TV, home video and the Internet). Also, Hollywood's success is despite the fact that many major international markets have only been partly open, with many of them imposing import quotas for almost a century.[1]

Yet, none of this seems to have made a difference. Hollywood productions have remained predominant around the world throughout that time, despite countless efforts to support national production and to restrict Hollywood. In 1920, the Hollywood studios accounted for over 70% of the world's movie revenues. In 2016, they still maintain about the same market share, 67.7.[2] During this time, pretty much the same six firms (Universal, Paramount, Disney, Warner Bros., Columbia, 20th Century Fox) dominated and produced the majority of films. (MGM and RKO dropped out; Disney joined.) Not even Houston's oil companies, New York's Wall Street and London's City financial clusters, or Detroit's automotive industry maintained such long-term global dominance. What does this tell us about the elements for success in content production?

3.2 Content Industries

3.2.1 Early Content

The production of what we now call "media content" goes back to the early days of humanity, when individuals and groups performed for their community or overlords. Over time, this became organized and institutionalized—theater in ancient Greece, gladiatorial spectacles in Imperial Rome, playhouses in Elizabethan London, opera stages in Italy. Some performers were individual content providers, such as bards, troubadours and minstrels. They provided entertainment and news. Others were teams organized as content companies that produced and performed spectacles, plays and music events.

In nineteenth-century America and Europe, popular entertainment was provided by theater, opera, circus and various kinds of burlesque shows. But the economics were unfavorable—they were relatively expensive events to produce, and the limited potential for automation and mass production meant it was difficult to expand performances to larger audiences. The "craft"-style content production was ready to be replaced by a mass production model in the same way that print technology had industrialized the book medium after the sixteenth century. For music, this technology emerged after 1877 with the Edison phonograph; for moving visual imagery, film technology made a big splash after 1895.

3.2.2 Types of Production

Production is generally done in one of two basic ways: as a "job shop" or as a "flow shop." A job shop means a specialized craft production. This approach creates special and highly varied products and uses general tools. In the media field, examples for job shop productions are plays, music events and books. Job shop productions typically require a relatively limited upfront capital investment to cover the relatively small upfront overheads, but they have relatively high variable costs of production for the individual item.

In contrast, a "flow shop" is a process of mass production that requires specialized resources. Flow jobs tend to be industrial productions, i.e. on a larger scale and repetitive. They are characterized by high fixed costs but low marginal costs. They are less flexible than a job shop production and require larger capital investment. Examples of flow shop productions are newspapers and magazines in content creation, and telecommunications services in distribution.

In media and technology, there are typically two stages of production. The first is the production of the "first copy", which has job shop/craft characteristics; the second is the making of reproductions and their distribution, which have flow shop/industrial characteristics.

3.2.3 Cost Characteristics: Film Versus Theater

The basic economic advantage of film over theater is that its distribution cost per viewer is only 1% or less of the cost to distribute a similar item

1 For example, import quotas and restrictions were set in Germany and France in 1921.

2 Tartaglione, Nancy. "2016 Intl Box Office Sees Projected 3.7% Drop Amid Currency Shifts & China Dips—Studio Chart." *Deadline Hollywood*. Last updated January 5, 2017. ► http://deadline.com/2017/01/highest-grossing-movie-studios-of-2016-international-box-office-1201878861/.

of content via live theater. This low cost facilitates distribution to audiences of many millions. However, to make millions of people want to see a particular film rather than any of its rivals, one needs to create a highly attractive product. This requires a higher upfront production costs for the film than is spent on a theatrical show.[3] These costs can then be spread over the larger audience. Thus, content production costs for Hollywood films (the fixed costs) have risen, over time, to the remarkable figure of approximately $10,000/second—500 times higher than for a typical commercial theater production.

Thus, film shifts costs away from the *variable* costs of distribution to the *fixed* costs of content production. The cheaper the distribution, the more elaborate the content production can become, since it is spread across more users. It is one of the economic characteristics of an industry with high fixed costs and low marginal costs that it has high economies of scale—large providers have cost advantages over small ones (provided they produce reasonably efficiently).

The same cost dynamics apply to a comparison of printed books with hand-written manuscripts. A printing press reduces incremental cost, but increases upfront investment in fixed costs. It is also the case for recorded music vs. live music, or for off-the-shelf packaged software vs. customized programs. It is the economics of industrial mass production vs. those of artisan production.

However, it is also a double-edged sword. Production with higher fixed costs and lower marginal costs is more profitable when the number of tickets or copies sold is large. Conversely, it can also lead to a much higher loss when the number of tickets sold is low. It is the higher-risk strategy. To deal with this downside, risk reduction therefore becomes a central management task in the content production of mass-market media.

A second management consequence is that a high-fixed cost, low marginal cost industry with its high economies of scale means a more concentrated industry structure, composed of a few large firms. These dimension of content production will now be discussed, with the film industry, which has pioneered many of the business models of media, as the main example.

3 For theater, these upfront production costs include expenses up to the opening show, after which the costs are those of reproduction.

3.2.4 History of the Film Production Industry

In the 1820s and 1830s, Nicéphore Niépce and Louis Daguerre, in France, and William Fox Talbot, in England, invented the process of photography, using glass plates. In the 1880s, George Eastman of the USA created celluloid film that could be rolled up, and he introduced cheap Kodak cameras. In 1891, Thomas Edison's laboratory invented the Kinetoscope, where the viewer stared into a box to see moving images. However, Edison's peep-show style display could only be viewed individually, or by small groups using a bank of consoles. In contrast, the brothers Louis and Auguste Lumière of Lyon, France, projected their moving images onto a screen, facilitating mass audiences. Their first film clip was *L'Arrivée d'un train à la Ciotat* (1895). Its first showing was in Paris in 1895 and can be counted as the beginning of the film medium as popular entertainment.

Almost immediately, new types of content began to emerge; film moved beyond novelty to a medium of considerable creativity. Already in 1902, *A Trip to the Moon*, a science fiction film, was produced in France with new special effects. Physical comedy emerged, and the antics of comedians such as Charlie Chaplin were distributed worldwide. The first Western film, *The Great Train Robbery*, was created, as was the first sexually suggestive film, *The Gay Shoe Clerk*. These and other productions could venture into content that theater could not accomplish technically or financially—special effects and genuine outdoor scenes.

The fundamental economics of the film medium led also to imitation, piracy and to attempts to monopolize markets. In 1908, in a bid to control the industry, the so-called "Edison Cartel" pooled the patents of the industry leaders Edison, Pathé, Vitagraph, Eastman Kodak, and Biograph, as well as the financial resources of J.P. Morgan. The cartel possessed patents, theaters, money, lawyers and connections. Yet, it was unable to suppress independent film entrepreneurs. These emerged from the popular entertainment industry (such as vaudeville) that catered to working-class audiences, or from retail and merchandizing trades. These pioneers established the film companies that continue to exist into the twenty-first century.

Fig. 3.1 Universal Studios lot 1936

As the industry grew, the studios organized factory-like production facilities and employed actors, directors, craftsmen, crews and equipment that could be used for many projects (Fig. 3.1).[4] They moved into flow-type production, creating hundreds of films each year. The MGM studio in Culver City could shoot six different films at the same time. Feature films could be shot in less than a week.[5] The legendary Cecil B. DeMille at times directed and produced two films simultaneously.

Today, the six major Hollywood film studios that dominate the film business are fairly similar in size, with market shares of about 10–15%, depending on the success of a particular season.

3.2.5 Production in Other Media Industries

3.2.5.1 Books

After the emergence of print technology in the fifteenth century, early printers at first also functioned as publishers by selecting and commissioning content. Printing centers emerged, such as Venice and Amsterdam. In the early eighteenth century, publishing separated from printing and became a profession in its own right. Publishers such as Weidmann (Leipzig) and Longmans (London) have continued into the twenty-first century. In the USA, the structure of the book industry, after a period of fragmentation and easy entry, stabilized in the 1920s and centered on a handful of major publishing companies surrounded by thousands of small firms. The large publishers were McGraw-Hill, Random House, Simon & Schuster, Little Brown, HarperCollins, and MacMillan, and were mostly located in New York.

The book industry has fairly high marginal costs and moderate fixed costs; its economies of scale are therefore moderate. This has contributed to an industry with numerous small publishers (about 3000), and to a huge number of individual products, most of them with a small production run. Combined with the rising supply of authors, the number of titles published has grown strongly. Publishers need to make numerous managerial decisions beyond the editorial ones and are the central node in book production. They select authors and manuscripts; improve the product; oversee printing and manufacturing in-house or outsourced, and determine the quantity; they market the book, set prices, secure copyrights and license subsidiary rights; they manage the distribution channels; and collect sales proceeds and distribute them to claimants such as authors.[6]

3.2.5.2 Newspapers and Magazines

In the richer countries, newspaper penetration used to be high but it has been steadily declining. In the USA, 78% of the adult population read a daily paper in 1970. That number dropped to 51.6% by 2005, 33.7% by 2014[7, 8, 9] and 28% in 2016.[10] Some countries have a newspaper system

4 The Studio Tour. "Universal Studio 1936 Aerial." Last accessed July 18, 2017. ► http://www.thestudiotour.com/ush/frontlot/images/1936_aerial.jpg.

5 Epstein, Edward Jay. *The Big Picture, The New Logic of Money and Power in Hollywood*. New York: E.J.E. Publication, Ltd., 2005. This highly informative book was a frequent source for factual information for this book.

6 Bailey, Herbert S. *The Art and Science of Book Publishing*. Athens, OH: Ohio University Press, 1990.

7 Newspaper Association of America. "Newspaper Readership & Audience by Age and Gender." *NAA.org*. Last updated March 18, 2013. ► http://www.naa.org/Trends-and-Numbers/Readership/Age-and-Gender.aspx.

8 Newspaper Association of America. "Daily Readership Trend – Total Adults (1988–2005)." *Newspaper Association of America.* (1988–2005). Last updated October 2005. ► http://www.naa.org/marketscope/pdfs/Daily_National_Top50_1998-2005.pdf.

9 Pew Research Journalism Project. "Newspaper Readership by Age." *Pew Research Center*. Last updated July 2014. ► http://www.journalism.org/media-indicators/newspaper-readership-by-age/.

10 Edmonds, Rick. "Newspaper declines accelerate, latest Pew Research finds, other sectors healthier." *Poynter*. Last updated June 15, 2016. ► http://www.poynter.org/2016/newspaper-declines-accelerate-latest-pew-research-finds-other-sectors-healthier/416657/.

based on large, nationwide newspapers; examples are Japan and the UK. Other countries have a system of local/regional papers, for example, the USA and Germany. The newspapers distributed in the USA nationally are *The Wall Street Journal*, *USA Today*, and *The New York Times*. Aside from such presence, in most US cities newspapers operate in a near-monopolistic local market structure. In 2014, only 20 American cities were served by two or more separately owned competing local dailies. The city population needed for the general assurance of a single local paper in the year 2000 was above 100,000 whereas, in 1980, this figure had been only half that number. To sustain more than one daily local newspaper required, on average, a population of more than one million, double the figure in 1980.[11]

In many countries, the market share of the top newspaper publishing company is quite high: Mexico (O.E.M. 49.4%); Turkey (Dogan 63%); Australia (News Corp. 58%); Chile (Mercurio 55%); Ireland (INM 52%); South Africa (Naspers 36%); Argentina (Clarin 45%); France (Amaury 30%); and the UK (News Corp. 35%).[12] In the USA, the largest newspaper company is Gannett, with a market share of 12% in 2016.

Given the historically central role of newspapers in political and commercial communications, there has been a great deal of concern about the decline of newspapers. The continued trend toward local market newspaper monopoly, the mergers of newspaper groups, shrinking circulations and the emergence of the Internet as an effective delivery platform of free news and targeted advertising have raised worldwide alarms about the future viability of newspapers. Newspapers firms responded by further consolidation, using technology to streamline production and distribution processes, and the cutting of editorial costs (and often quality). But, in particular, newspapers "repurposed" their content in new electronic ways to compete for consumer attention and advertiser support.

Magazines do not include up-to-the minute news and are able to rely on more leisurely delivery systems than newspapers.[13] Magazines rapidly adapt to changing interests and activities in society; as a result, the industry has faced a less steep decline than daily newspapers. The major magazine groups tend to publish dozens of different titles, with economies realized in the physical production and distribution more than in content production. In the USA, these groups are Advance Publications, Meredith, and Hearst, each with about 7–9%. Internationally, aside from the Government of China and the three US groups mentioned, the largest groups are the commercial publishers Abril and Globo (both in Brazil), Bauer, Axel Springer, Burda, and Bertelsmann (Germany), Lagardere (France), Sanoma (Finland) and Bonnier (Sweden).

3.2.5.3 Music

The recorded music industry is internationally concentrated and integrated with other media. Three major music groups own large numbers of specialized and national labels worldwide, each with its own character and specialties. The Universal Music Group, owned by the French company Vivendi, has a global market share of 33.5%, Sony (Japan) holds 22.6% and the Warner Music Group (USA) 17.1%. For a traditional music CD, the production activities (artist, songwriter, composer, copyright, producer, recording, manufacturing, and allocated overheads and profit) account for about 53% of overall revenue. Distribution accounts for 37%. For online music, production gets about 44% of revenues.[14]

3.2.5.4 Television Content

Much TV content has a short half-life, especially news and sports events. "Disposable television" includes talk shows, award galas, and so on. However, a short economic life has advantages, too, since it attracts less piracy. Other major parts of TV entertainment content are serials and

11 Noam, Eli. *Media Ownership and Concentration in America*. New York: Oxford University Press, 2009, 142.

12 Noam, Eli. *Who Owns the World's Media?* New York: Oxford University Press, 2016

13 Compaine, Benjamin M. and Douglas Gomery. *Who Owns The Media?* 3rd ed. Mahwah, NJ: Lawrence Erlbaum Associates, Inc., 2000, 147–193.

14 For online music, the retailer—such as Apple iStore—takes about 30%; the distributor (for encoding, submission and so on) 8%; the producer/label 28% (the latter includes marketing 11%, production 10%, administration/overheads 5%, and profit 2%); advertising intermediaries 16%; the artist 10%; songwriter and composer 6%.

"made-for-TV" films. These have increasingly become part of subsequent distribution over the Internet.

The world's largest producers of TV content are state-owned broadcast entities (such as in China, Egypt and Russia), and national public service broadcasters such as BBC (UK), RAI (Italy), NHK (Japan), and ARD and ZDF (Germany). Large commercial TV producers are Globo (Brazil); Televisa (Mexico); NTV, TV Asahi, Fuji, TBS (Japan); SBS (Korea); Bertelsmann (Germany) and Fininvest (Berlusconi, Italy). In the USA, the largest TV content producers in 2013 were Disney (29.0%), Viacom/CBS (20.1%), Universal (Comcast, 16.3%), 21st Century Fox (Murdoch, 7.8%), Time Warner (10.7%) and Sony (4.5%). Almost all these companies not only produce, but also operate broadcast and cable channels. Market shares vary from year to year based on the success of particular shows.

3.2.5.5 Video Games

Video games, though distributed by game publishers, are actually written by different types of developers: in-house teams of the publishers, independents who may self-publish and self-distribute, and third-party contractors. When self-developing, the distribution forms hire programmers, game designers, artists, sound engineers, producers and testers.

Major games cost easily $10 million and more to produce, plus $10 million to market. Game platforms are subject to a five-year hardware cycle of technology generations, and game companies must redesign most of their game software on the same schedule to conform to the enhanced technological capabilities of the new-generation platforms.

The video game industry has moved to economics similar to those of Hollywood. This includes high budgets and a reliance on blockbusters.[15] The industry introduced in-game advertisements similar to TV commercials.

3.2.6 The Global Success of the Hollywood Production Industry

We now return to a discussion of the film industry. For several centuries, the flow of culture—books, theater and music—flowed largely in one direction: out of Europe to the colonies and the rest of the world. Then, however, the direction of the flow reversed for the youthful medium of film. Starting in 1910, American films accounted for over half of the box office in Europe, exceeding domestic products even in France, Germany and the UK, and this percentage grew in the 1920s. In response, protective import quotas and restrictions on the repatriation of box office earnings were speedily established in the major European countries. In effect, this was an early regulatory measure against cultural globalization—which, until then, had been acceptable in music and literature. Content protectionism serves three functions: to shelter a country's national culture and identity, to support the influential cultural production sector and its workforce, and to help project a country's visibility worldwide. The measures employed were direct governmental subsidies, import quotas, screen and broadcast quotas, and tax breaks. Many of these policies have persisted in one form or another for almost a century. Even so, of the top 40 grossing films worldwide in almost every year almost all were Hollywood productions. In most countries, audiences prefer domestically produced films. Imported Hollywood films follow behind as the second most popular and, as they are more numerous, they thus dominate. The key problem is that films from third countries—including films from neighboring countries—are much less popular outside their own country. In 2004, only 8% of film revenue in Europe was from European films shown outside their own national market in other European countries.[16]

What, then, are the reasons for Hollywood's success as a content production center? The answers may help to identify the main success factors for content production more generally.

15 Nussenbaum, Evelyn. "News and Analysis; Video Game Makers Go Hollywood. Uh-Oh." *New York Times*. August 22, 2004. Last accessed April 11, 2017. ► http://www.nytimes.com/2004/08/22/business/news-and-analysis-video-game-makers-go-hollywood-uh-oh.html.

16 European Audiovisual Observatory. *Focus 2004 – World Film Market Trends*. Cannes: Marché du Film, 2004. Last accessed August 7, 2012. ► http://www.obs.coe.int/online_publication/reports/focus2004.pdf.

3.2.7 Case Discussion

Canal Plus and the Hollywood Advantage

France is the birthplace of film and is also a significant market for the medium. In 2016, 209 million tickets were sold; 34.5% of admissions were for French films, while 53.6% were for American films, an increasing number over 2011 when it was 48%;[17] and 211 French films were released,[18] which made France the largest film producer in Europe.

Canal Plus (or Canal+) is the major French film distribution and production company, a subsidiary of the multi-media firm Vivendi. It has its own production arm (StudioCanal) and distribution channels in France, Europe and Africa.

Cinema in France

To understand the present and future of Canal Plus, one must understand its past. For several decades, French film had been a relatively weak exporter. In other cultural markets, French cultural products have been highly successful around the world. Paris is the capital of fashion and cuisine; its books are read worldwide. In popular French music, dance music group Daft Punk has become highly successful. Its album Random Access Memories, released in 2013, sold half a million copies and was number one in the Billboard album chart. Another famous French musician is the rock star Johnny Hallyday, who has sold more than 100 million albums worldwide.

For decades, many of the major French films were elaborate productions of classic novels of French culture. This "cinema of quality" was supported by government funds. Critics covered it gently. Outside of France, it left no mark. A dissident group of gifted writers and critics centered around the journal *Cahiers du Cinema*, including Francois Truffault, Jean-Luc Godard, Eric Rohmer and Jacques Rivette, and attacked this tradition. Starting in the late 1950s, they began to make their own movies.

The result was a major renaissance in French filmmaking. 120 first-time directors made full-length films in the years 1958–1964. Governmental or public-service TV usually supported these films. This era is known as the French New Wave—Nouvelle Vague. Other French filmmakers in those years included Claude Chabrol, Jean Renoir and Alain Resnais.[19] Soon, however, the New Wave crested. Financial success was less frequent, and younger audiences did not follow the 1960s generation in enthusiasm. By the late 1970s, French film had declined again.

To deal with this decline, the French government created a financial support mechanism. Its most notable element was through the creation of the new pay-TV channel Canal Plus in the mid-1980s. Previously, under conservative French presidents de Gaulle and Pompidou, French TV was totally owned and controlled by the government, for which it was the mouthpiece. De Gaulle's influence rested on his direct TV addresses to the nation. A new socialist president, Francois Mitterand, himself long a victim of such state TV, opened the medium, and created the first pay-TV channel, Canal Plus. But, staying within the paradigm of state control, it was guided by Andre Rousselet, the President's closest advisor, chief of staff, regular golfing partner, campaign finance director and the executor of his will. Rousselet became head of the largest French advertising and media company, Havas, which then received from the government a monopoly license to transmit pay-TV in France, as Canal Plus. Being the state-licensed monopolist of pay-TV, Canal Plus was able to charge prices that would have failed in more competitive markets. In 2014, it charged almost $53 per month. In contrast, HBO or Showtime in the USA charge $11–$17. In return for its profitable exclusivity[20] in pay-TV, Canal Plus had to agree to allocate 10% of its revenues to the production of French films. This revenue source became the major funder of French cinema.

Vivendi—The Parent Company

Vivendi is the largest European media company. Its origin is the French municipal water utility Compagnie Generale Des Eau, created by edict of Napoleon III in 1853. Eventually, water distribution led to waste management, construction, energy, cable TV distribution and mobile telecom. The media part was renamed "Vivendi." Its president, Jean-Marie Messier, was a highly entrepreneurial leader who admired the American media CEO model. He made the company a major vehicle of growth.

Vivendi diversified by buying the second French cellular telecom operator, the videogame companies Activision and Blizzard Games, and Canal Plus. It then acquired the major Hollywood studio and music companies Universal Pictures and Universal

17 Centre National du Cinema et De L'Image Animee. "Theater Admissions—Estimates for February 2017." Last modified March 3, 2017. ► http://www.cnc.fr/web/en/theater-admissions.

18 The Numbers. "Movies Produced by France and Released in 2016." Accessed April 11, 2017. ► http://www.the-numbers.com/France/movies/year/2016.

19 Grant, Barry Keith. *Schirmer Encyclopedia of Film*. Detroit: Schirmer Reference, 2007, 235.

20 Canal Plus briefly got competition for terrestrial pay-TV, 30 years later, when the French government licensed SelecTV, which, however, went bankrupt after a short time.

Music in 2000. Eventually, however, Vivendi over-extended itself and faced huge debt obligations and insolvency. The losses in 2001 stood at $11.2 billion. Messier was fired, and Vivendi sold off some of its acquisitions, including most of Universal Pictures. Messier was charged with securities violations and, a decade later, was slapped on the wrist to pay a fine of €150,000.

Vivendi became a classic vertically integrated multi-national mass media and telecommunication company with activities in music, television, film, publishing, telecommunications, the Internet and video games.[21] Its market share in the film market in France is 26.8%, far ahead of others, including Hollywood firms whose combined share was about 50%. In 2016, Canal Plus accounted for 23% of Vivendi's profits.[22]

Canal Plus has a stake in two-thirds of French film production and is the prime provider of original cable TV content in France. It is Europe's largest film distributor (over pay-TV) and film producer, and it wants to export worldwide, including to the USA. The question is, how this might be done? How can Canal Plus become a global content producer? What kind of content should Canal Plus produce, and how?

3.3 Conventional Arguments for Hollywood's Success in Production

3.3.1 Supposed Advantage: Market Size? Language?

Many explanations have been offered for Hollywood's enduring success as a center for content production. The most frequent reasons given are the large scale of the market, as well as political and economic power; superior access to talent; and vertical integration of production and distribution. These factors will now be discussed, as they are relevant to all types of content industries.

The conventional argument for content success is that a large domestic market must exist before exporting the content worldwide. Thus, the US population is about 318 million, whereas the French population, for example, is only 66 million. A 2013 compilation finds that English as a first and second language was understood by 840 million people. For French, the number was 486 million; for Spanish, 430 million; for Portuguese, 310 million; and for Arabic, 620 million. It is highest for Mandarin at 1036 million and Hindi/Urdu at 850 million.[23] Thus, English by sheer numbers is not a radical outlier, though it is clearly by far the most influential and global language, and is spoken by an economically affluent slice of the world's population.

But is market size, even when weighted by income, determinative of production success? If it were, this would relegate small countries into permanent roles as importers. However, such "two-stage" thinking, in which exports are only a subsequent second step after domestic success, makes no sense for a business firm. With such economic logic, there would be no major industry of making watches in Switzerland, chocolate in Belgium, software in Israel and Ireland, or video games or consumer electronics in Korea. All these countries are relatively small. None possesses unique natural resources. But they are major exporters of their products despite (or, perhaps, because of) their limited national markets. In the modern economy, producers must plan from the beginning to sell in a world market, rather than only domestically.

That it can be profitable for media companies from small or medium-sized countries to become large in global terms can be seen by the world's largest commercial book publishers. In 2009, these had been #1 Bertelsmann (Germany); #2 Lagardère/Hachette (France); #3 Fininvest/Mondadori (Italy); #4 Planeta (Spain); followed by a US company (Harper Collins) as #5, controlled by the long-time Australian Rupert Murdoch's News Corp. All of these companies made a substantial part of their business outside their home base.

But an exports orientation also has an impact on content. If export revenues rise in importance, the incentives for content in terms of themes and style will be more global and less local. Therefore,

21 Vivendi. "Vivendi in Brief." Last accessed April 12, 2017. ► http://www.vivendi.com/en/vivendi-en/.

22 Vivendi. *Vivendi 2016 Annual Report.* Last accessed April 12, 2017. ► http://www.vivendi.com/wp-content/uploads/2017/02/20170223_Financial_Report_and_Consolidated_Financial_Statements_FY_2016.pdf.

23 Simons, Gary F. and Charles D. Fennig. Eds. *Ethnologue: Languages of the World*, 20th ed. Dallas, TX: SIL International, 2017. Online version: ► http://www.ethnologue.com.

content that aims at export will most likely shed some of its domestic distinctions in favor of a wider global appeal. "Mid-Atlantic" or "mid-Pacific" content emerges. An extreme example, in the late 1960s, was the highly successful films out of Italy known as "Spaghetti Westerns," which emulated American cowboy films. Given the worldwide popularity of the genre at the time, these Italian-made films were hits everywhere. But they were not particularly Italian in content. Similarly, television content, for worldwide success, becomes export-oriented. Endemol, a Netherlands-based firm, developed TV formats that were then widely franchised, such as "Big Brother" and "Fear Factor." There are few elements in it that are distinctively Dutch or Western European.

The same dynamics affect American content. Not all content is equally exportable. Films with action, adventure, physical comedy and special effects generally travel well to other countries. In contrast, comedy films are more difficult to translate in terms of language and subtext. Social controversies such as race themes do not export well, either. In consequence, the tastes of foreign audiences affect American film themes and casting. In the casting of films, an increasingly multinational set of performers is chosen for their marketing appeal.

A large domestic market helps content production. But it can be overcome by a firm that "thinks globally" in its content production strategy rather than locally, and on a scale that goes beyond its domestic position. It must not think of exports as an aftermarket but as *the* market. This, however, means a reduction of the national character of the content in order to appeal to a wider audience, through themes, styles and costs. (There will, of course, be a few exceptions in which the very "foreign-ness" of content is its attraction.)

3.3.2 2nd Supposed Advantage: Vertical Integration of Content with Distribution?

Many people believe that the success of content producers requires that they control distribution channels, which gives them advantages over competitors. There are two major kinds of vertical integration for media. The first, *backward* integration, is when a distribution company such as a TV network produces its own inputs such as TV shows. By doing so, the company controls the costs and quality of inputs. The other kind of vertical tie-in, *forward* integration, is when production firms control distribution channels. This ensures distribution, markets and supply, while also helping to create product synergy. Examples are when a music company or book publisher operates its own distribution through retail stores or "media clubs."

The major distribution companies handle products created by their own affiliated production companies, but they also distribute content produced by independent and foreign producers, and even by competitors. This is true for film, TV, music, or videogames. It is also the case, in some instances, for book, newspapers and magazine publishing.

What are the business reasons for the vertical integration of production and distribution?

- Vertical integration is advantageous to a content producing company in order to control the release of its products and their prices through a "release sequence" of different outlets, different timings, coordinated planning and different prices.
- The cross-marketing of multiple products and a cross-platform distribution are facilitated, thereby reducing transaction costs.
- To a distributor, it is advantageous to have assured access to products it controls, and to favor those products over those of others. Attractive content may be scarce, and superior access to it provides a distributor with market power.
- Through vertical integration, market power can be extended from one stage of the value chain to another, e.g. from distribution to production, and used to foreclose markets to competitors.
- Rivals can be subjected to a vertical "price squeeze" in which the wholesale market price for their product is kept low by their rival's domination of wholesale distribution. The vertically integrated rival then shifts its profit to the wholesale sector from the production sector. The same can be done by a company that dominates retail.

That said, economists are generally skeptical about these alleged business advantages of vertical integration. (The exception exists when high market power in one stage is extended into a competitive stage. An example of this would be Microsoft using its market power in operating systems – i.e. Windows – to gain market share in related applications programs such as word processing.) Generally, favoring one's own product is sensible only if it is a stronger product. It is not economically rational for a distributor to reject another producer's blockbuster and push its own less popular product into distribution. Similarly, it is not economically rational for a distributor to be a captive buyer for an inferior product of its own production company. Disney, as a TV show producer, should sell any of its new programs to the highest bidder, not to only to its own TV network ABC. And the ABC network, similarly, should buy the most attractive programs at the best price, not specifically those produced by Disney companies.

Vertical integration works where market power lies in one segment and is expanded to a competitive segment, thus foreclosing markets to competitors. But the source of the advantage is the market power in a segment, not the vertical integration itself. When it comes to advantages such as cross-marketing, timing of release and so on, a media firm can achieve through contracts most of the same results. The existence and magnitude of "synergies" have been exaggerated by empire-builders and deal brokers. The actual performance of the vertically merged entities has often been disappointing.

To conclude the wider point of the discussion so far: the conventional explanations for success as a content producer—as exemplified by Hollywood—have been: domestic market size, and vertical integration of production and distribution. These factors are helpful, to some extent, but are not the core reasons for success. They should not deter other film producers and distributors. Instead, the major factor for a content company's sustained economic achievements is the effectiveness of its production system and product development. These are key elements that are not exclusive to Hollywood. They will now be discussed.

3.4 Organizational Success Factors for Content Production

There are three factors for a superior production process for content:

A. Organizational structure;
B. Risk reduction;
C. Product development.

3.4.1 Organizational Structure

3.4.1.1 Networked Production

When people discuss film production they tend to talk about the "studios" that they are producing all "Hollywood" movies. This is not so. A production process can be one in which all activities are conducted in-house or, alternatively, by outsourcing many activities, with the firm being more in the nature of assembling the pieces and functioning as a marketing brand. This is true for consumer electronics just as it is for content production.

Up to the 1950s, the Hollywood film studios were integrated mass producers, like automobile makers or oil companies. In consequence, they operated with high overhead costs. The invasion of television forced the Hollywood studios to re-engineer themselves in the 1960s. The main strategy was, first, to position themselves at the high-end of the product spectrum and leave cheaper mass production (B-movies) to TV. Second—and this has been much more important in management terms, even if it is less noticed by film fans—was to lower overhead costs by shifting to a project-based organization. The studios moved from mass-producing commodity content along the "flow-shop" model of production to a customized production model—a "job shop"—based on ad hoc specialists and a networked production system. Contributors to a project—such as actors, writers, musicians, cinematographers, editors and financiers—became free-lancers. Over 100,000 of the film industry's workers are now independents, or work for tiny companies with fewer than 10 people.[24] What

24 Kotkin, Joel and David Friedman. "Why Every Business Will Be Like Show Business." *Inc.* March 1, 1995. Last accessed April 12, 2017. ▶ https://www.inc.com/magazine/19950301/2182.html.

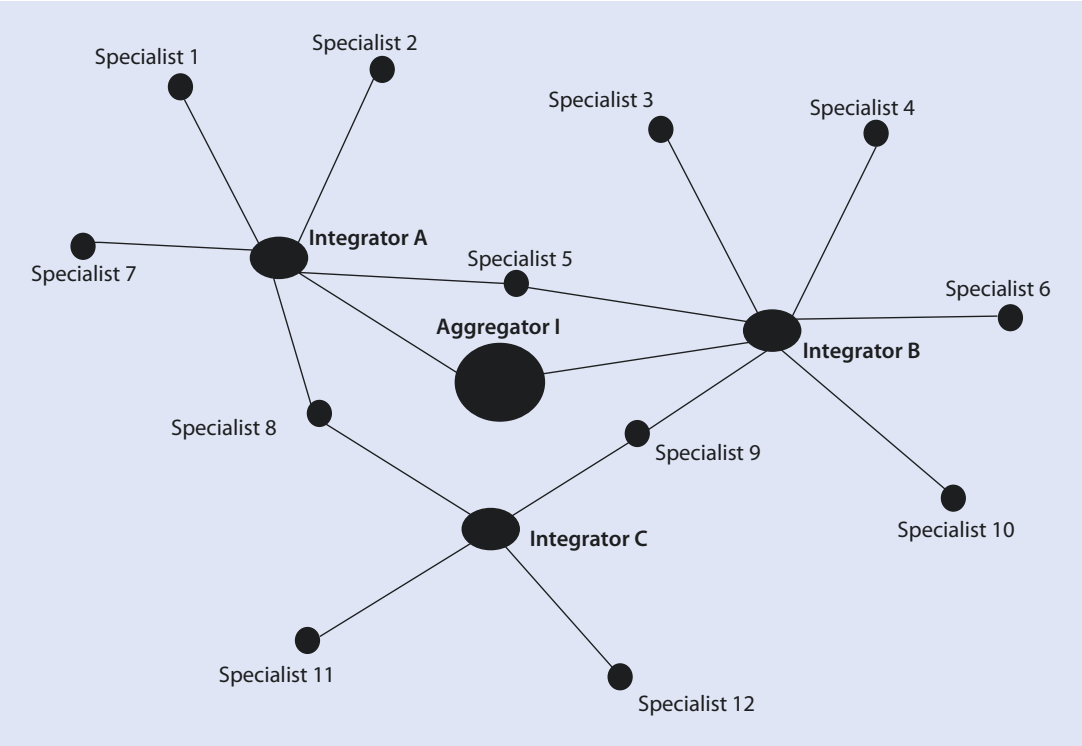

Fig. 3.2 Networked production

the major Hollywood studios do is provide back-office support for production teams, some financing, and distribution/marketing. This structure has several benefits: it is relatively low on bureaucracy, low in capital overheads and low on employee fringe benefits such as pensions and health plans.

These trends restructure an industry from vertically integrated production companies with in-house employee talent and skills to a system of horizontal specialists for hire. These specialists are brought in for in-house projects, or by specialist outsourced companies. It was an early version of a "gig-economy" based on freelancers and independent contractors. This decentralized organizational model was adopted by other leading industries. High-tech companies in Silicon Valley are a good example. The former chairman of Intel, Andy Grove (former CEO of Intel), compared the software industry to the theater, where producers, directors, actors, technicians and others are brought together briefly to create a new production.[25]

A networked structure for production emerges, shown in Fig. 3.2.

In this illustration, there are three levels of hierarchy in content production: aggregators, integrators, and specialists. The aggregator (I) is a distributor TV network, or online platform that put together packages of content. The integrators (A–C) are the film and TV producers and entrepreneurs who create specific content products by bringing together specialized talent (1–12) and management. There may be a fourth level, when the specialists are themselves firms that put together individual talent. A fifth level may exist when multiple aggregators (networks) are combined in a larger platform such as cable TV or an online film website.

25 Rifkin, Jeremy. "When Markets Give Way to Networks…Everything Is a Service." *The Age of Access: How the Shift from Ownership to Access is Transforming Modern Life*. London: Penguin, 2000, 361–374.

Such network structures exist, or are emerging, in many content media, including film production, software development, video game development, recorded music, book publishing and many magazines.

3.4.1.2 Clustering

Specialization both encourages and feeds on geographic clustering. Clustering enables specialization. It also leads to a disaggregation of the production process into multiple firms and providers that are assembled for each project into an ad hoc organization. Clustering is prevalent in the media and information sectors.

Major reasons for the formation of economic clusters are:

- Positive network effects: The various specialists encourage each other, and this attracts yet more specialists, in a "virtuous" cycle.
- Clusters encourage investment in reputation for high-quality and cooperative behavior. This is because there are repeated interactions among the parties in a cluster.

Film clusters exist in other countries. But the Hollywood cluster is the largest. Companies outside this cluster therefore have to make more of an effort to link up with it, and benefit from its scale and network effects. Electronic communications make this easier—and, in the process, are broadening the geographic footprint to a virtual one. Nevertheless, the person-to-person aspect remains important for creativity, deals and the informal bonds that reduce transaction costs.[26]

To conclude: this, then, is the organizational structure of Hollywood:

- Entrepreneurial specialization and fierce competition in production;
- Oligopoly in distribution.

There are also similar structures—though less developed—for music labels, book imprints, and video games.

26 Kotkin, Joel and David Friedman. "Why Every Business Will Be Like Show Business." *Inc*. March 1, 1995. Last accessed April 12, 2017. ► https://www.inc.com/magazine/19950301/2182.html.

3.4.2 Funding and the Reduction of Risk

The second major economic factor in content production is money. This is often described as "access to capital," and Hollywood is said to possess such access. But "access" is a meaningful concept only in association with a price. The price of money is the interest rate (explicit or implicit); it is determined by the perceived risk to the investor that must be compensated. Such risk can be reduced by managerial actions. Thus, the access to capital is ultimately a matter of risk management.

Risk reduction is a major factor for superior production. According to a 2013 study by the British Film Institute, of 613 UK films made between 2003 and 2010, only 7% made a profit and, of low budget films, only 3.1%. For big budget films, it was still low at 20%. There have been cases where a film flop ruined an entire movie studio, such as the tradition-rich studio United Artists, through *Heaven's Gate*, and the upstart studio Carolco, through the disastrous *Cutthroat Island*. 20th Century Fox was nearly sunk by *Cleopatra*.

The probabilities of success have become still lower. As platforms and productions expanded, the probability of reaching the top of a week's audience rankings (for movies), or to platinum status (for music), or the bestseller's list (for books) declined by half. Of new US primetime TV series, only one-quarter survive beyond the first season, whereas in the 1980s, it was one-third.[27]

At the same time, content production became more expensive. Factors that have increased the production cost of media include rising wages. Audio and video media copyright licensing fees increased by 8.32% per year, from 2010 to 2014.[28]

With costs rising, rivals abounding, and attention fragmenting, risk reduction is a crucial management task in the media production process.

27 Aris, Annet and Jaques Bughin. *Managing Media Companies: Harnessing Creative Value,* 2nd ed. West Sussex: Wiley, 2009.

28 Bureau of Labor Statistics. "May 2013 National Occupational Employment and Wage Estimates United States." Last accessed April 18, 2017. ► https://www.bls.gov/oes/2013/may/oes_nat.htm; Marybeth Peters. "Analysis and Proposed Copyright Fee Adjustments to Go into Effect on or about August 1, 2009." *Register of Copyrights*. March 15, 2009. Last accessed April 18, 2017. ► https://www.copyright.gov/reports/fees2009.pdf.

There are various ways to reduce risk:

- Market forecasting;
- Insurance;
- Shift of risk to others;
- Diversification;
- Hedging.

3.4.2.1 Market Forecasting

Can the success rate of media products be improved by market research? Some of this is discussed in ▶ Chap. 9 Demand and Market Research for Media and Information Products.

3.4.2.2 Insurance

Typically, about 1.5% of a film's budget is spent on general insurance that covers the production if something goes wrong. "Errors and Omissions" insurance protects production companies against lawsuits for libel, slander and copyright infringement. For movies with outside funding, banks or investors require a "completion bond" to ensure that investors do not lose everything if the film runs out of money. "Completion bonds" are similar to insurance. They are purchased from a guarantor. Major bonding companies are owned or backed by large insurance companies. The guaranty fee is typically 3–6% of the production budget.

3.4.2.3 Step-Wise Investment (Option Contacts)

One major way to lower risk is to decompose a project into several phases, each with a different risk level, with the option to proceed or not to proceed to the next phase. Such arrangements are common in venture financing, as well as for film and music investments. For example, a producer might acquire rights to a book under an option contract for $10,000, and commission a screenplay from a writer for another $40,000–$100,000. The producer and distributor, at each step, can proceed under pre-negotiated terms that give them an exit strategy in case they choose to get out of the project and cut their loss.

3.4.2.4 Risk Shifting

Content producers and distributors will reduce their risk by shifting it to others, in particular to:

- *Outside investors*, by sharing potential losses with them when they are sequenced into a late position on the ladder of those receiving payments. Being last to be paid, they bear a disproportionate share of losses.
- *Talent and performers*, by compensation based on profit-sharing, which makes them be a part of the downside risk. Here, too, they may be last in line for their payout for the upside, whereas the producer receives "first dollar" which is less risky. Risk can be shifted through control over the accounting of profits, in which direct costs and overheads are inflated, while revenues are understated. Fewer than 5% of released films show a profit for "net profit participation" purposes.
- *Suppliers*, by pushing inventory-holding requirements to them.
- *Buyers*, by requiring foreign distributors and other distribution platforms to "pre-buy" as yet unproduced projects.

Together, these techniques may make a content project profitable to the producer itself, even if it is a loss to others involved.

3.4.2.5 Content Portfolios and Diversification

If risk reduction is the key for the lowering of capital cost, diversification is the central element of such reduction. Financial theory shows that an investment can achieve a lower risk by being part of a portfolio. This is called diversification.

The first type of diversification is a "product extension," where a company uses its expertise in one area to extend into a related area. For example, the publisher of a business newspaper may also create a real estate magazine. The second type of diversification is that of a portfolio creation. If there is a slate of four movies, A–D, each with a different probability of success, the expected value of the overall outcomes is the sum of the products of the probability times the result.

In the media world, portfolio diversification is created all the time, for example by a music group owning dozens of labels, (each of which, in turn, may have dozens of artists), or by a publishing company with numerous magazine titles, or by a book publishers with many "imprints" (sub-brands) and titles.

There is a third dimension of risk reduction by diversification. It is based on the possibility that the separate items are not independent of each other but, rather, are correlated. People tend to plan seeing a movie on a weekend. If they decide against film A, the likelihood that they will see film B increases, and vice versa. A and B are negatively correlated.

The incremental risk of an asset depends on whether its returns tend to vary with or against the returns of the other assets held. If it varies against, then it reduces the overall variability of a portfolio's returns. As long as returns on assets are negatively correlated (when one does poorly, the other does well), a portfolio may have a low overall volatility even with extremely volatile individual assets.

Finance theorists have used the concept of "beta" to describe stock portfolios. Beta describes the sensitivity of a stock portfolio to broad market movements. The overall stock market (represented by an index such as the S&P 500 or FT-100) is assigned a beta of 1.0. By comparison, a portfolio which has a beta of 0.5 will tend to participate in broad market moves—but only half as much as the market overall. In contrast, a portfolio with a beta of 2.0 will tend to benefit or suffer from broad market moves twice as much as the overall market.[29]

An arrangement in which studios distribute numerous films, or music groups own multiple music labels, or print publishers own multiple magazine titles, and so on, reduces risk by pooling many risky projects into a much less risky portfolio. This makes their aggregate cash flow much safer for the lenders and, hence, lowers their cost of capital. By reducing risk, portfolios reduce the cost of capital for media companies and increase their access to financing. This is one of the major factors for a content company's success: to deal with high-risk projects at a medium-risk financing cost.

3.5 Product Development

As presented above, organizational structure and risk reduction are two major factors for advantages in production. Product development is the third key factor and will be discussed now.

3.5.1 Concept (Style)

A product's design needs to be based on an understanding of users and the market. For innovative products, the design may be ahead of market demand. A product will often fail if it is too far ahead. This is true for media technology as well as for media content. Originality is important for success but radical originality will often miss the mass audience. To be one step ahead of mass taste is innovative, to be three steps ahead is risky in business (and artistic) terms.

Media products typically aim at either a mass market or niche market.[30] Mass-market media products will be near the center of the taste distribution. They are typically short-term oriented and marketing-driven.[31] Niche products will be more at the edges of the distribution, seemingly with low demand. However, the center is likely to be crowded with other products, while niches may well be less contested. Niche audiences may therefore be just as high, while higher prices may be achievable and shelf life is longer.

Book publishing has always combined a niche orientation with a mass-market orientation ("best-sellers"). An orientation toward specialization is obvious for professional books. But, even in fiction, publishers have ventured far to attract niche audiences through finely tuned sub-genres.[32]

The divergence of the "popular culture" approach from the "niche" approach is one of the differences of Hollywood film vs. "artsy" films. In film, there are two major perspectives on style. The Hollywood orientation on popular style is that of the business culture: "film is show business. No business, no show." In several other film centers, greater reverence is given to the creator than to the audience. The filmmaker's orientation is to critical success (*succes d'estime*), and even disdain for the general public. The famous French-Swiss filmmaker Jean-Luc Godard put it provocatively: "Who is the enemy? The audience!"[33] This dichotomy is not new. Alexis De Tocqueville, the French political thinker, wrote in 1830, after visiting America: "In aristocracies a few great pictures [paintings] are produced; in democratic countries a vast number of insignificant ones."[34]

29 RiskGlossary.com. "Beta." July 9, 2009. Last accessed Aug 2, 2012. ► http://www.riskglossary.com/link/beta.htm.

30 A third category is "true talent," products which are driven by exceptional artists whose performance cannot be readily replaced. See Aris, Annet.

31 Aris, Annet and Jaques Bughin. *Managing Media Companies: Harnessing Creative Value*, 2nd ed. West Sussex: Wiley, 2009.

32 For example, Atria, an imprint of Simon & Schuster, publishes erotic African American romance novels. Another romance novel sub-genre is the Hispanic historical genre. Danford, Natalie et al. "Toujours L'Amour." *Publishers Weekly*. December 1, 2003. Last accessed April 17, 2017. ► http://www.publishersweekly.com/pw/print/20031201/29546-toujours-l-amour.html.

33 Glazebrook, Philip. "Movies versus films." *The Spectator*. May 31, 1997, 39.

34 De Tocqueville, Alexis. "In What Spirit the Americans Cultivate the Arts." In *Democracy in America Volume II*. Charlottesville, VA: University of Virginia. Last accessed April 18, 2017. ► http://xroads.virginia.edu/~HYPER/DETOC/ch1_11.htm.

Elements of "popular culture" in film (as well as popular novels, where applicable) include:

- Brisk pacing;
- Sexual tension;
- Episodes of action, violence, and suspense;
- Special effects;
- Intrigue;
- Mood music;
- A novel approach to an old fable;
- Happy ending or "wow finish."[35]

There is no inherent reason why other countries' studios cannot produce similar popular content. Most European, Japanese, Indian, Korean, Australian and Egyptian films are not "artsy" but aim at popular taste, too. In other words, they, too, often try to be commercially successful but succeed less in doing so, at least when it comes to exports. (Usually, only the "high-culture" films get exported, thus creating a skewed image of quality.) The Indian film industry, known as "Bollywood," aims squarely at popular taste, where (chaste) love conquers all. Bollywood films rarely mention politics, poverty, or the grim social realities of India.[36] They were produced mostly for audiences in South Asia, yet have been moving toward globalization, paralleling the broader shifts in the Indian economy. Both Hollywood and Bollywood succeed with audiences because their orientation is demand-driven and popular.

3.5.2 Product Selection

Selection among content ideas is a key media industry function. The typical investment per content production is significant at the level of major media companies.

- Hollywood film: $70 million;
- Network TV series/pilot: $8 million;
- Video game: $10 million;
- CD with hit potential: $1million;
- Book with best seller potential: $0.5 million.

Any project competes for access to funding and to other scarce resources such as management attention, marketing and promotion priority, production facilities and release timing.

The main phases of such a process are:

- Understanding the market and identifying needs;
- Attracting, receiving, or generating ideas;
- Selecting the project;
- Monitoring, testing, and modifying the product;
- Feedback.

It is claimed that, of 10,000 theater scripts, one play is being produced; of 5000 proposals for TV shows, one is chosen; of film scripts, one in 5000; and of novel manuscripts, one in 15,000. The president of the Doubleday book publishing house reported that of 10,000 submissions he received "over the transom" (i.e. unsolicited) each year, only three to four were accepted. Fox claims to receive 10,000 film screenplays, treatments, books and oral pitches yearly.[37] Of these, 70 to 100 projects move into development. Of these, only 12 films are created.[38] And, if only 20% of films break even, that would mean that about 2 are ultimately successful out of 10,000 that enter the pipeline.

For TV program selection, out of thousands of proposed ideas for series, in the USA about 600 are chosen each year for further development. Of those, only several dozen make it to the "pilot" stage test production. About 15 shows are then picked for regular programming by each major network. Most of these shows are not renewed due to insufficient audience success.

Business factors for selection are:

- Artistic quality.
- If based on a play, concert, or, a book, the sales history in that medium.
- Associated talent: directors, producers, authors, stars and their track record.
- The potential for sequels, merchandise, and movie-related books and video games.
- Competitive offerings.
- Fit with the company's brand.
- Fit with the company's portfolio.
- Pre-existing financing deals.[39]

35 Wasko, Janet. "The Magical-Market World of Disney." *Monthly Review* 52, no.11, April 2001: 56–71.

36 Mehta, Suketu. "Welcome to Bollywood." *National Geographic*. February 2005, 52–69.

37 One must be somewhat skeptical about all these numbers.

38 Caves, Richard E. *Creative Industries: Contracts Between Art and Commerce*. Cambridge: Harvard University Press, 2000.

39 Levison, Louise. *Filmmaking and Financing: Business Plans for Independents*. New York: Focal Press, 2013, 47–49.

- Anticipated marketing effort (hard sell? likely word-of-mouth?).
- How promising the author/artist is for future creations.

In any selection process, there will inevitably be wrong calls followed by finger-pointing. Universal Pictures, after spending more than three years developing the script of *Shakespeare in Love*, decided in the end to pass on it. Disney's subsidiary Miramax then bought the rights and produced it, and the film went on to win seven Oscars, including for Best Picture. To avoid taking blame, there may be a built-in incentive to play it safe by accepting projects associated with well-known producers, directors and stars.[40]

Of course, designing an effective selection system is important. But, any selection system, whatever it may be, will be denigrated by many of those left out as being biased, prejudiced and ignorant. And since, inevitably, most projects will be rejected, any selection mechanism will be unpopular within the artistic community.

In practice, the screening is a logistical challenge. The initial screening requires so many hours of professional attention that firms are trying to cut the effort (and cost) required. As a major screening mechanism, many publishers, film producers, or music labels do not accept submissions unless they come pre-screened through a trusted intermediary, such as an agent or a person whose judgment is valued. These agents, in effect, endorse the scripts. They are filters for quality, as well as legal firewalls. They have to do repeat business with a media company and hence must protect their own reputation by maintaining a balanced and objective perspective about their clients' work, while at the same time promoting it.

Given the large number of submissions and the need to keep track, a database must be created with relevant pieces of information. A book manuscript/proposal is then reviewed by an acquisitions editor or similar professional. The screener will write an internal report on projects that they recommend, and possibly also on those that require significant revision or rejection.[41] The report may include an estimate of market potential and production cost. An author's future potential is factored in.[42]

In film and TV, some companies try to use computer tools to do the initial screening on the script. Scripts that pass are then reviewed by a studio reader who creates a "coverage" report, which very succinctly summarizes concept, plot, principals, commercial prospects and evaluation. This is reviewed by managers in charge of creative affairs and, if it proves to be suitable, is passed up the chain for approval. The script may go through a dozen executives. Input must also include that of marketers and financial managers (a sensitive issue for creators).

3.5.2.1 Economic Tools for Product Selection

Project selection takes place in every industry; it is not particular to commercially-oriented content industries. Most common is the technique that considers net "present value" (NPV) of a stream of income.

$$\text{NPV} = \sum_{t=1}^{n} \frac{C_t}{(1+r)^t}$$

C_t is the net cash flow in year t, r is the discount rate (the lower value of future cash (next year) over present cash), and t is the time of the cash flow.

Consider a film in which the total production costs come to $7,000,000. The revenue, after the theater's share of half of the box office receipts, decrease each year by half, from $5 million in the first year to $2.5 million in the second year, and so on. We assume a discount rate of 12%. Table 3.1 shows revenues and their discounted value.

Total net present value is:

$$\sum_{t=0}^{4} \frac{C_t}{1.12^t} = 7{,}921{,}516 - \$7{,}000{,}000$$
$$= \$921{,}516$$

The film is profitable, with a return on investment of about 13% ($0.921 million/$7 million).

40 Epstein, Edward Jay. *The Big Picture, The New Logic of Money and Power in Hollywood*. New York: E.J.E. Publications, Ltd., Inc., 2005.

41 Curwen, Peter. *The World Book Industry*. New York: Facts on File, 1986.

42 Authonomy. "How book publishers decide which books to publish." Last accessed June 13, 2014. ► http://authonomy.com/writing-tips/how-book-publishers-decide-which-books-to-publish/; Legat, Michael. "What Do Publishers Want?" *Writer Services*. 2001. Last accessed April 18, 2017. ► http://www.writersservices.com/resources/what-do-publishers-want; Zacharius, Steven. "To Publish or Pass: The Editorial Meeting & Selecting Books for Publication." *The Huffington Post*. Last updated March 8, 2014. ► http://www.huffingtonpost.com/steven-zacharius/to-publish-or-to-pass-the_b_4542548.html; Bennett, Jeffrey. "How Publishers Choose Manuscripts." *Ezine Articles*. February 10, 2007. Last accessed June 13, 2014. ► http://ezinearticles.com/?How-Publishers_Choose-Manuscripts&id=449959.

Table 3.1 Net present value of a film project

Year	Cash flow, discounted	Present value
$t = 0$	−$7,000,000	−$7,000,000
$t = 1$	$\frac{5,000,000}{1.12}$	$4,464,286
$t = 2$	$\frac{2,500,000}{1.12^2}$	$1,992,985
$t = 3$	$\frac{1,250,000}{1.12^3}$	$889,725
$t = 4$	$\frac{625,000}{1.12^4}$	$397,199
$t = 5$	$\frac{312,500}{1.12^5}$	$177,321

The problem with this tool is that the future-oriented revenue numbers are highly uncertain. Statistical tools for project selection were therefore developed to improve the odds on prediction. The problem is that they basically mimic whatever has worked before. Generally, these models do not work well in the selection process. If they did, the success rate of films or books would improve, and production companies not using such models would suffer, and there is no evidence for that.

3.5.3 Product Development

"Development" is the process by which a story idea or editorial concept is written, revised and improved. For technology projects, it is the "D" in "R&D". According to one estimate, in 2002 the six Hollywood studios and their subsidiaries had more than 2500 ideas in some stage of development with producers. Most do not get produced in the end. For example, 90% of projects under development by Paramount failed to be green-lighted. Projects that fail to be green-lighted are either put in "turnaround," which gives the producers the right to sell them to another studio, or are simply abandoned. The basic idea for a piece of content must be developed into a full outline of a work. The process is divided into defined stages, with an option at each step to continue for another round. A film screenplay goes through a dozen of drafts, and is rewritten as late as during the shooting or in the editing process.[43] The original writer often has no role or say in the changes. (For Broadway theaters, labor union contracts gives playwrights veto rights.[44]) High end "script doctors" may be paid high fees for last-minute emergency revisions.

Feedback to content designers is constant. Films are tested through "sneak previews" to help make changes. In theater, plays and production are tested through public performances.

The development process is even more structured for technology-based content, for example, software for a videogame. Here, the process starts with a lead designer/visionary, who is responsible for the game concept. The game is then broken down into a series of levels and missions for a player to complete.[45] The specialized tasks are managed by level designers, software planners, lead architects, and managers responsible for art, sound, and quality. A game design plan includes an overall budget, a schedule[46] and sub-schedules for engineering, art, various features, testing and so on.[47] Most video game console development teams require 20–50 people, and some over 100.

3.5.3.1 Market Research

Especially for expensive products, the development process will often be dominated by marketability, rather than art. This will include a search for appealing endings, and special effects with a "wow-factor." The studios will also use test screenings and focus groups to fine-tune the film before the "final cut" version. That said, audience research often misses successes or failures. For example, opinion surveys predicted that the film *Fight Club* would be a flop—yet, it grossed more than $100 million.[48]

43 Vascieck, Donald L. "How to Choose a Good Script Consultant." *DonVascieck.com*. October 13, 2010. Last accessed June 13, 2014. ▶ http://donvascieck.com/screenwriting/how-to-choose-a-good-consultant/.

44 Caves, Richard E. *Creative Industries: Contracts Between Art and Commerce*. Cambridge: Harvard University Press, 2000.

45 Newman, James. *Videogames*. New York: Routledge, 2004.

46 Long, Starr. "Online Product Development Management: Methods and Madness." Presented at the Game Developers Conference, San Jose, California, March 4–8, 2003.

47 Bethke, Erik. *Game Development and Production*. Plano: Woodware Publishing, Inc., 2003, 19–95.

48 Barnes, Brooks. "Solving Equation of a Hit Film Script." *New York Times*. May 5, 2013. ▶ http://www.nytimes.com/2013/05/06/business/media/solving-equation-of-a-hit-film-script-with-data.html.

One type of market research is to recruit a focus group and preview audiences for in-depth interviews, or more general survey responses. The demographic makeup is either random or selected. Test audiences are often used for film in advance of its release. There are two types of such film "previews:" for production and for marketing. Production previews help filmmakers fine-tune the movie while it is being made, whereas marketing previews study an audience's reactions to complete films and assess marketing strategy.[49]

Many popular movies have been altered after being shown to test audiences. Originally, Glen Close's character in *Fatal Attraction*—that of a vindictive, spurned woman—survived; however, audiences hated her and the ending was therefore changed to see her die.[50] Conversely, in the movie *ET*, the lovable alien space traveler character originally perished before test audiences rescued him and sent him back to his galaxy. Thankfully, test audiences do not always prevail. *Wizard of Oz* test audiences complained that "Somewhere Over the Rainbow" slowed down the movie but the song stayed and became a classic.[51]

These audience analysis tools are not used only by electronic media concerned with audience maximization. Newspaper editors, too, use various types of audience analytics to help shape their selection and placement of stories. On the Internet, it becomes much easier to track the popularity of individual stories, the time spent reading them and the potential for sharing with others. This tracking can be correlated with other data about each reader. Experiments become much easier on the Internet. If Amazon.com wants to find out whether a new webpage design increases sales, it can run a controlled experiment. It will show the design to, say, every hundredth visitor. Determination of whether the new design increases sales can be made within a few days.[52]

3.6 Production Planning

3.6.1 Operational Challenges for Content Production

3.6.1.1 "Scientific Management"

"Scientific management" was a concept conceived in the early twentieth century by Frederick Taylor. He envisioned the firm as a well-oiled machine, with defined process rules, a clear hierarchy and each component being replaceable. Taylor introduced the stopwatch measurement of the time required for various tasks and, indeed, for each body movement. Taylor was lionized in his time, but his examples and stories were later revealed to be factually and analytically weak. Yet, the basic concept of a management of company operations based on models and numbers has survived.

Tools of operations management are:

1. Budgeting;
2. Production design;
3. Supply chain;
4. Inventory control;
5. Scheduling.

Software programs aim to guide managers by using internal and external data, and various analytical modules. Manufacturing resource planning (MRP) systems are used to organize production.[53] They use models of operations-research business process management and economic/finance analytical business models. But, to reach the proper judgment, a manager needs to understand the elements of such programs. This will be the subject of the next sections.

3.6.2 Budgeting

For a successful development process, a firm must balance three essential variables: budget, time and quality (◘ Fig. 3.3).[54]

49 Friedman, Robert. "Motion Picture Marketing." In *The Movie Business Book*, 3rd ed. Ed. Jason Squire. UK: Open University Press, 2006, 282–298.

50 Bay, Willow. "Test Audiences Have Profound Effect On Movies." *CNN*. September 28, 1998. Last accessed April 18, 2017. ► http://www.cnn.com/SHOWBIZ/Movies/9809/28/screen.test/.

51 Bay, Willow. "Test Audiences Have Profound Effect On Movies." *CNN*. September 28, 1998. Last accessed April 18, 2017. ► http://www.cnn.com/SHOWBIZ/Movies/9809/28/screen.test/.

52 Varian, Hal R. "Kaizen, That Continuous Improvement Strategy, Finds its Ideal Environment." *New York Times*. February 8, 2007. ► http://www.nytimes.com/2007/02/08/business/08scene.html.

53 Investopedia. "Manufacturing Resource Planning – MRP II." Last accessed April 19, 2017. ► http://www.investopedia.com/terms/m/manufacturing-resource-planning.asp.

54 Based on Bethke, Erik. *Game Development and Production*. Plano: Wordware Publishing, Inc., 2003, 19–95.

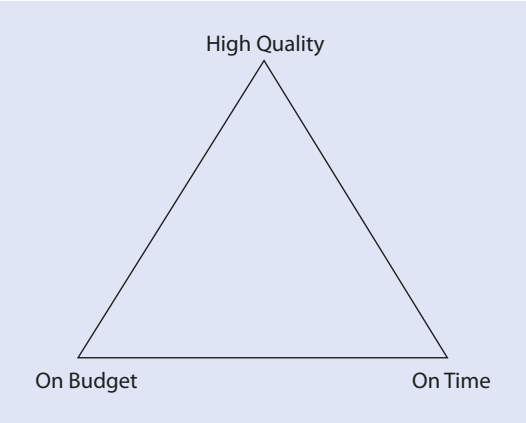

Fig. 3.3 Tradeoffs in the development process

In the real world, projects tend to achieve only two of these goals.[55]

1. On budget and on time, while sacrificing quality;
2. High quality and on budget, but requiring more time;
3. High quality and on time, but requiring extra spending.

The challenge to production planners is how to reduce overspending, while maintaining the schedule and the required quality.

To create a budget, one needs to know comparative data for similar projects and activities. Some are available to the producer or publisher from their own past activities, others must be found in databases, trade papers and industry magazines.[56] The rest need to be calculated based on specific cost items, hours, pay levels, rental fees and so on.

An example is the budget of several types of theater in New York City (Table 3.2). Theater productions and their budgets vary greatly according to the nature of the production itself—whether it is a Broadway show (premium commercial), an off-Broadway show (commercial or non-profit), or off-off Broadway (low-budget, non-profit).[57]

For the high-budget theater categories, advertising/marketing and the physical production account for about 40% of the cost. Within physical production, "scenery" is the largest expense (12.5%) of the entire budget.[58]

One particular thorny issue in budgeting is how to allocate costs among several different activities. Most media organizations pursue, at any given moment, more than one project. How, then, does one separate their revenues, costs and investments? This is discussed in ▶ Chap. 13 Accounting in Media and Information Firms. Here, we introduce one element, that of "activity-based costing" (ABC) or "activity-based budgeting" (ABB).

ABC enables budget accounts for various activities based on cost allocation for those activities. The full cost of each activity is calculated, and "cost drivers" are established that link cost elements to the various activities of the firm. ABC breaks down overall costs according to how many resources a particular activity consumes. ABC differs from traditional cost accounting, which assumes that the volume of the end product is the only driver of costs. ABC thus helps an organization to analyze which activities create what cost, and enables firms to control their costs based on tangible activities rather than general accounting reports.

An example for activities-based costing is provided in Table 3.3.

Suppose a company makes music CDs as well as video DVDs. CDs are sold for $10 wholesale, and DVDs for $16. Of each type of disc, 20,000 are sold each week. Both use the same factory, the same workers and the same materials. One would therefore think that DVDs are the more profitable product line, with a sales price of $16 vs. $10 for CDs. But, before reaching such a conclusion, one would have to allocate the various costs associated with production.

The two products have the same cost for a jewel case and the underlying disc. But the DVD manufacturing also requires a patent license fee per unit, whereas the CD patents have expired. Also, the space requirements for DVD stamping are four times as high as those for CDs, and rent should be allocated accordingly. The overall wage bill ($160,000) should also be allocated among the

55 Bethke, Erik. *Game Development and Production*. Plano: Woodware Publishing, Inc., 2003, 19–95.

56 Levison, Louise. *Filmmakers and Financing*. 4th ed. Oxford: Elsevier, 2004, 153–168.

57 The figures were compiled for the year 2001 and no updates have been published.

58 Brown et al. *Wonderful Town: The Future of Theater in New York*. New York: National Arts Journalism Program, 2001.

Table 3.2 Theater budgets (Subcategories partial)[a, e]

Production type	Broadway	Off-Broadway (Commercial)	Off-Broadway (Nonprofit)	Off-Off-Broadway
Capacity	1350 seats	287 Seats	165 seats	60 seats
Length of run	Open-ended	Open-ended	56 performances	15 performances
Ticket price	$25–$70	$47.50–$50	$40	$15
	Cost $/%			
Physical production	*$418,250 (20.9%)*	*$66,500 (11.1%)*	*$34,050 (15.5%)*	*$1250 (16.7%)*
Scenery	$250,000	$37,500	$18,000	$900
Costumes	$50,000	$7500	$2000	$250
Lighting	$50,750	$11,000	$3000	$100
Fees	*$179,300 (9%)*	*$42,789 (7.1%)*	*$22,500 (10%)*	*$3150 (42.1%)*
Director	$50,000	$9138	$3800	$1000
Author	n/a	$7000	$3600	$0
Designers	$100,300	$14,388	$10,000	$1300
Salaries	*$161,288 (8.1%)*	*$40,050 (6.7%)*	*$51,180 (23.3%)*	*$0 (0%)*
Actors	$75,120	$24,000	$23,760	$0
Understudies	$30,048	$2108	$0	$0
Stage management	$36,670	$5958	$9770	$0
Rehearsal expenses	*$187,000 (9.4%)*	*$55,100 (9.2%)*	*$12,900 (5.9%)*	*$1000 (13.4%)*
Stagehands, load-in	$130,000	$15,250	$11,500	$0
Rehearsal space rent	$13,000	$5000	$0[b]	$1000
Workshop expense	$0	$28,500	$0	$0
Front of house	*$40,000 (2%)*	*n/a[c]*	*$12,730 (5.8%)*	*$120 (1.6%)*
Box office	$40,000	n/a	$9460	$0
Programs	$0	n/a	$750	$120
Advertising/marketing	*$469,000 (23.5%)*	*$165,500 (27.6%)*	*$57,300 (26.1%)*	*$1955 (26.1%)*
Publicist	$8000	$5500	$2400	$1000
Opening night	$60,000	$7500	$2500	$0
General admin.	*$211,162 (10.5%)*	*$75,459 (12.6%)*	*$15,423 (7.2%)*	*$0 (0%)*
Payroll taxes	$28,778	$10,727	$9323	n/a
Insurance	$25,000	$5000	n/a[d]	n/a
Legal	$20,000	$16,000	$0	$0
Contingency	*$166,500 (8.3%)*	*$100,000 (16.6%)*	*$0 (0%)*	*$0 (0%)*

Table 3.2 (continued)

Production type	Broadway	Off-Broadway (Commercial)	Off-Broadway (Nonprofit)	Off-Off-Broadway
Union bonds	*$167,500 (8.4%)*	*$54,602 (9.1%)*	*$13,678 (6.2%)*	*$0 (0%)*
Actors equity	$150,000	$27,882	$11,014	$0
ATPAM	$10,000	$2740	$0	$0
Total (pre-opening)	*$2,000,000*	*$600,000*	*$219,761*	*$7475*
Per-week expenses	$223,281	$50,000	$5000–$11,000	$937.50

[a]Brown et al. *Wonderful Town: The Future of Theater in New York*. New York: National Arts Journalism Program, 2001, 49;
[b]Company pays annual rent;
[c]Front-of-house expenses accounted for under other categories;
[d]Included in annual company budget.
[e]Budget sub-categories of "Other" are omitted.

Table 3.3 Activities-based cost allocation

Sales revenue	$10/CD	$16/DVD	TOTAL
(20,000 sold in each product line)	200,000	320,000	520,000
Costs of goods sold			
$.60 jewel case	12,000	12,000	24,000
$1.60 disc	32,000	32,000	64,000
$1.60 special license for DVD	0	32,000	32,000
Total cost of goods sold	44,000	76,000	120,000
Gross margin	156,000	244,000	400,000
Operating expenses			
Rent	20,000	40,000	50,000
Wages	45,720	114,280	160,000
Energy	8,000	32,000	40,000
Total operating expenses	63,720	186,280	250,000
Net profit	92,280	57,720	150,000

two product lines. Suppose it takes longer to make a DVD because 50 steps are required, whereas CDs require 20 steps. To calculate the share in wages, one first determines the number of total steps for making the CDs (20,000 CDs • 20 steps) = 400,000 and the number of steps for making a DVD = 20,000 DVDs × 50 steps = 1,000,000. The share of work steps in overall is, for CDs, 400,000/1,400,000 = 28.57% of the total labor steps, and correspondingly 71.43% for DVDs. The total labor cost of $160,000 is then allocated accordingly.

Energy cost is allocated in a simpler fashion. Suppose that DVD machinery uses four times as much electricity. The percentage allocation then would be 80% for DVDs and 20% for CDs.

The results, after the ABC allocation are done based on our assumptions, show that the simpler and cheaper product, the CD, is more profitable in total ($92,280 vs. $57,720) and on a per unit basis ($4.61 vs $2.89).

3.6.3 Location and Supply Chain

An important management decision about production is its location and the extent of its outsourcing. Whether it is the assembly of electronic media devices or the editing of book manuscripts, production activities have been decentralized within highly developed countries and have also migrated to other countries. Factors are labor costs, taxes, local resources, market size and access to it, proximity, distribution costs, regulatory environment and governmental support.

Book publishers, too, have moved production activities, especially to India. For example, Springer Science Publishing employs 1200 Indian typesetters and editors for English and German language works.[59]

Outsourcing to other firms allows firms to concentrate on their core activities while benefiting from the economies of scale of specialist firms.[60] For example, the UK public service broadcaster BBC, since 2001 has not been engaged in the technical aspects of actual broadcasting but has used the transmission service company Red Bees (a commercial BBC spinoff that also transmits for Virgin Media TV, Channel 4, Canal Plus, Channel 5, RTE and others.).[61] This has lowered costs for the BBC, and has gained access to updated broadcast technology and infrastructure with expert engineering support.

One must also recognize the downsides: most outsourcing relationships end up being unsuccessful. The failure rate is said to lie between 40% and 70%.[62] For building solid relationships with suppliers, particularly those in distant countries with different legal systems, trust is a crucial element.[63] Such a relationship develops slowly. Typically, the first contracts with a new supplier will be on a project-by-project or shipment-by-shipment basis, and lengthens and deepens from there. A contract would have service level agreement (SLA) between the buyer and the supplier. If the supplier fails to meet agreed levels of service, SLAs usually provide for compensation, often in the form of price rebates.

Such an agreement is followed by constant coordination and careful attention.[64] It requires that:

- The production schedules of the buyers and the vendors are coordinated.
- Vendors are updated on strategic changes or new products early on.
- Forecasts of sales are shared in real time.
- A purchase order system is used to monitor the purchases.
- Bills are paid promptly.
- Vendors and buyers integrate each other's inventory planning or forecasting systems, electronic data interchange (EDI) and enterprise resource planning (ERP).

A typical way for a buyer to lower cost is to use several vendors to split orders and to rotate among them. However, multiple sourcing can also include hidden costs. Relationship handling costs are multiplied, and suppliers will have lower economies of scale and hence a higher cost.[65]

59 Srinivasan, S. "German publisher Springer to shift 1,550 jobs to India." *Rediff*. September 14, 2005. Last accessed April 19, 2017. ► http://www.rediff.com/money/report/jobs/20050914.htm.

60 Outsourcing has different categories. Business process outsourcing (BPO) is the outsourcing of a specific operational task, such as payroll or invoicing. Knowledge process outsourcing (KPO) involves technological, analytical and R& D skills. In production process outsourcing (PPO), a contractor provides manufacturing.

61 "Outsourced Broadcast." *Cable & Satellite Europe* no. 261 (September 1, 2006): 1. ► http://ezproxy.cul.columbia.edu/login?url=http://search.proquest.com/docview/221819396?accountid=10226.

62 Overby, Stephanie. "The ABC's of Outsourcing." *CIO*. June 8, 2007. Last accessed April 19, 2017. ► http://www.cio.com/article/2438784/outsourcing/the-abcs-of-outsourcing.html.

63 Outsourcing requires considerations beyond direct cost. There are legal considerations: who is liable if a product causes harm? What is the recourse in the event of a dispute (which will be frequent)? How reputable is the supplier?

64 Board of Trade of Metropolitan Montreal. "Manage Your Suppliers," *InfoEntrepreneurs*. Last accessed May 22, 2014. ► http://www.infoentrepreneurs.org/en/guides/manage-your-suppliers/.

65 Gadde, Lars-Erik and Ivan Snehota. "Making the Most of Supplier Relationships," *Industrial Marketing Management* 29 (2000): 305–316.

3.6.4 Inventory Management

Operation research (OR) is a collection of mathematical and statistical techniques for decision making and management tasks. It often incorporates stochastic elements of uncertainty and random variables.

An example is the management of the supply chain, i.e. how to obtain the inputs for the production process. A firm must find and select suppliers, provide storage for its inputs, and store the finished products while awaiting distribution. The challenge is to reduce an expansive inventory sitting around without creating value, but incurring cost. At the same time, the inventory level must be consistent with the risk levels the firm seeks.

Perhaps the best-organized supply chain system is the renowned Japanese just-in-time (JIT) system. A JIT system requires major coordination and the reliability of all participants, with constant communication and interaction. It reduces inventory and waiting time. It favors production clusters that are geographically proximate.

The computer manufacturer Dell has an inventory strategy where it basically has no inventory at all. "Inventory is a four letter word at Dell."[66] The company claims that it turns over inventory 107 times per year. CEO Kevin Rollins says, "The longer you keep it the faster it deteriorates—you can literally see the stuff rot…Cutting inventory is not just a nice thing to do. It's a financial imperative." Dell used to carry 20 to 25 days of inventory in a network of warehouses. It created a Japanese-style JIT manufacturing model, and this cut costs drastically. On the other hand, it makes the company more vulnerable to future labor strikes, natural disasters and other disruptions.

3.6.5 Production Scheduling

A major operational challenge for content production is scheduling: production timetables, release dates, sequencing and so on. Software packages make this easier and faster. For film, in particular, planning must be elaborate. Each day of production costs a great deal of money. For example, the film *Terminator 3* was running a daily operating cost of $300,000. Stars may become unavailable after certain dates. It is therefore important to organize the process of production.

In the James Bond film *Tomorrow Never Dies*, while the main star Pierce Brosnan was playing the 007 hero in London, a stuntman playing James Bond was being filmed at another English location. A third "Bond" was parachuting out of a plane in Florida, a fourth "Bond" was piloting a speedboat in Bermuda, and a fifth "Bond" was shooting a swimming scene in London. The coordination of these scenes and their logistics requires elaborate planning, especially since they included many uncertainties, such as weather.[67]

An important function of production management is thus the scheduling of facilities and people. In a flow job operation, with a high and standardized process, this is a more predictable task. A rotogravure printing company, for example, will schedule the various magazines it prints very tightly in order to optimize the very expensive machine. In order not to create problems for other magazines with their varying distribution schedules, they absolutely must adhere to these times.

For a film, the script is broken down into scenes. Each scene must be planned in a "breakdown sheet", which includes locations, cast, props, wardrobe, extras, stunts, visual and special effects, animals, vehicles, and so on.[68] It also incorporates the number of work days required at each location. The length of each scene is estimated by its page count, measured in eighths of a page.

Planning is similar for a monthly magazine, with tasks that need to be done by specific days prior to publication. For example, the editorial copy may get started 49 days before the publication date. The first stage of editorial work must be completed 41 days before publication. The pages are then proofed and finalized, and that copy goes to the printer 31 days before publication, and back to editorial on day minus 24, and so on. The schedule incorporates other items, such as the cover, advertising, printing and delivery.

66 Breen, Bill. "Living in Dell Time." *Fast Company*. November 1, 2004. Last accessed April 19, 2017. ► http://www.fastcompany.com/magazine/88/dell.html.

67 Epstein, Edward Jay. *The Big Picture, The New Logic of Money and Power in Hollywood*. New York: E.J.E. Publications, Ltd., Inc., 2005.

68 Honthaner, Eve Light. *The Complete Film Production Handbook*. Burlington, MA: Focal Press, 2010, 57.

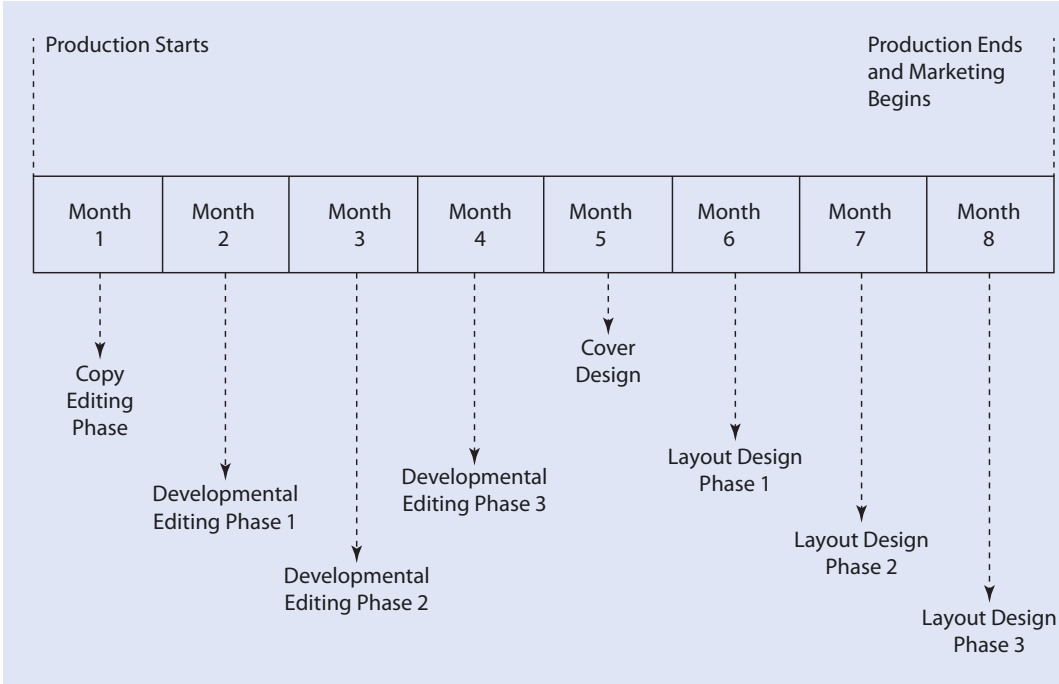

Fig. 3.4 Gantt schedule for book production

3.6.5.1 Gantt Chart

A popular planning tool is the Gantt chart, which displays how a project proceeds over a timeline, and where the project stands in terms of overall completion.[69] An example, as applied to book production, is Fig. 3.4.[70]

3.6.5.2 The Critical Path Method

A different tool used for scheduling is the critical path method (CPM). The chemical company DuPont developed the critical path methodology in 1957. CPM displays a timeline of the project development, but additionally prioritizes the different parts of the project. It identifies activities that can delay the entire project.

A hypothetical example for a CPM diagram is the production of a new microchip (Fig. 3.5).[71] The project comprises the tasks of: (A) wafer preparation—three days, (B) micro-electrode production—four days, (C) photolithography—one day, (D) etching—two days, (E) electrode assembly—two days and (F) metal deposition—three days. These tasks have their own start and end dates. Activities C and D cannot be started unless activity A is completed. It means that if the task A is delayed, tasks C and D will be delayed, too, as would be the entire project. Conversely, there is no point in tasks D and E being completed, as they are, in days 5 and 6 and then sit idle while F is scheduled to be completed only after seven days, even without delays. Therefore, the project manager has to accelerate the finish of activity F by one day, possibly by using resources from activity D which would slow down that activity by one day. This juggling would result in all tasks being completed at the same time, on day 6.

CPM works best as a scheduling tool for projects with fairly high certainty as to the completion times of the various stages. Applications include the scheduling of magazines, books and regular TV series, where the estimated completion times tend to be predictable. Many other projects, however, present uncertainty for their completion times. Here, a closely related methodology, the product evaluation and review technique (PERT) is applied.

69 Gantt, H. L. *Work, Wages and Profit*. New York: The Engineering Magazine, 1910.

70 Based on McKay, Hannah. "The Production Timeline." Shadow Time Writers. May 30, 2014. Last accessed April 19, 2017. ► http://shadowtime-writers.com/tag/production-timeline/.

71 Figure based on NetMBA. "CPM Diagram." *NetMBA Business Knowledge Center*. ► http://www.netmba.com/operations/project/cpm/.

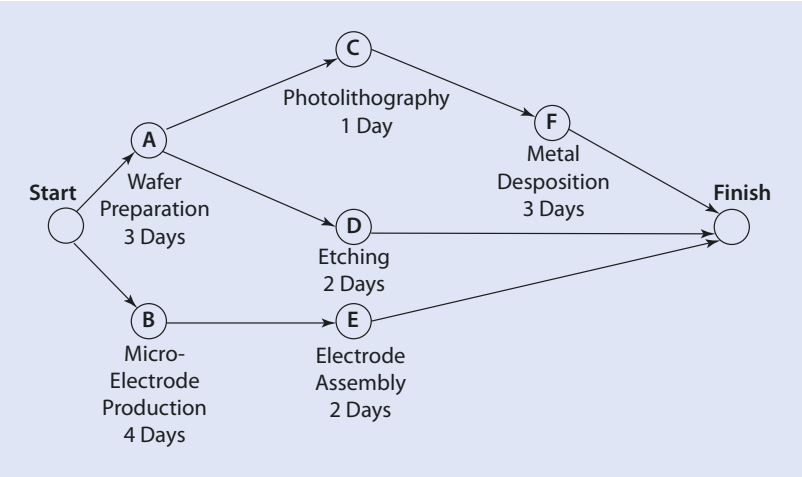

Fig. 3.5 Critical Path Method (CPM)

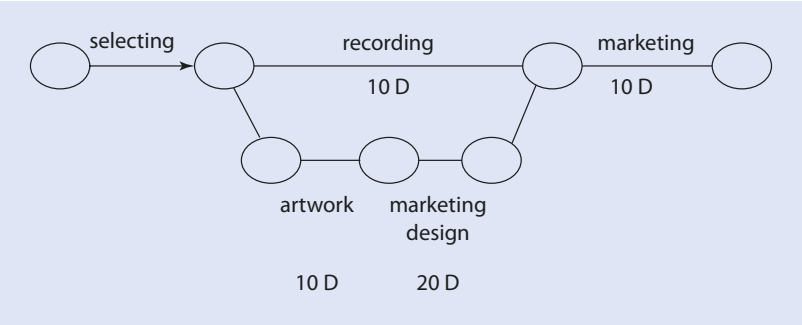

Fig. 3.6 PERT chart example for music video production (schematic)

A PERT chart approach helps to plan where different activities are involved. It defines the required activities that are part of the project, their estimated completion period, with a certain probability, and whether they are a prerequisite to other steps.[72] The methodology was initiated in the 1950s for large defense systems where hundreds of contractors were required to fulfill thousands of tasks, each contributing to a project with a certain probability distribution for completion. For each activity, the expected time is approximated by incorporating the most optimistic, the most pessimistic, and the most likely, in this weighted average:

$$\text{Expected time} = (\text{Optimistic} + 4 \times \text{Most Likely} + \text{Pessimistic}) / 6$$

An example for a PERT chart is how to produce an online music video (Fig. 3.6). The process is broken down into five activities: selecting, recording, artwork, planning marketing and marketing. Each of these activities has an expected length of time (in days) to be accomplished.[73]

The expected time is based on an optimistic scenario (O), a pessimistic scenario (P), and the most likely scenario (L). E = (O + P + 4L)/6.

For example, suppose that for recording the scenario would mean, in days, either 8 (optimistic), 16 (pessimistic), or 9 (most likely). The expected time would be: E = (8 + 16 + (4 × 9))/6 = 60/6 = 10.

In a similar way, the other expected times can be estimated for each operation. Two parallel tracks are designed for the production. While recording is taking place, artwork and marketing design is taking place. Their expected time is 10 + 20 = 30. This is a considerably longer time path than the expected time for recording, which is 10. Thus, the recorded music would have to wait

72 NetMBA. "PERT." *NetMBA Business Knowledge Center*. Last accessed April 19, 2017. ► http://www.netmba.com/operations/project/pert/.

73 Figure based on McGraw-Hill Technology Education. "Multimedia: Making It Work." *Lesson 15-Planning and Costing* (2003): 14. ► http://ewibowo.files.wordpress.com/2009/02/10-planning-costing.pdf.

for 20 slack days for the other necessary tasks to be completed. The only way for the two tracks to converge in time would be for recording to perform according to the worst-case (pessimistic) scenario (20 days), while the marketing design and artwork perform according to the most optimistic scenario (5 and 15). This is a conceivable scenario, but highly unlikely. Its probability is:

$$(\frac{1}{6}) \cdot (\frac{1}{6}) \cdot (\frac{1}{6}) = \frac{1}{256}, \text{ i.e. 4 chances in 1000.}$$

The alternatives would be to speed up the artwork and the marketing design to match the expected recording activity time, which could be expensive, or to deliberately slow down recording (for potential cost savings but slower output), or to create a parallel track for artwork and marketing.

This is a simplistic example, of course, but imagine its extension to a more complex project such as making a film, with numerous activities, some of which that can be in parallel, others that must be sequential, and all with a varying likelihood of on-time performance.[74]

3.7 Production Control

To control and run the success of a business or product, one must be able to measure performance. Traditionally, performance measurement has been financial, going back to the double-entry book keeping of fourteenth-century Venice, and to cost accounting adoptions by Josiah Wedgwood and Alfred Sloan as part of modern cost accounting. Measurement techniques became more refined for the continuous-flow type of production.

3.7.1 Budget Control

Monitoring of actual time used, cost of various activities, performance, and a comparison of planned ("budgeted") and "actual" figures helps to decide whether corrective action is needed. There are several cost tracking techniques. For a "job shop" production, job-costing is used, which compiles direct costs (materials and labor) as well as a share of overheads and indirect costs attributed to each project. "Flow shop" firms that repetitively produce homogenous goods use process costing, and calculate unit costs or total costs divided by the number of units.[75]

Budgeting needs to be continuously adjusted. Software packages make this easier and faster.[76] To control cost, high-budget activities such as film shoots utilize daily production reports. They state how many minutes were filmed or recorded, the estimated running time of the film created, the hours of all crew and cast members, and the events on the set.[77] One measure of production effectiveness is the "shooting ratio," which is the footage that is to be used for post-production editing relative to the footage shot.[78]

A daily cost overview is provided in Table 3.4 as an example.

What does this daily cost sheet show? It was the fourth day of shooting the film *Another Day, Another Dollar.* During the day, four scenes, accounting for 4 and 5/8th pages of the script were completed. However, this was two scenes and 6/8 pages behind the schedule. At the same time, cost ran over by $21,088, chiefly due to an extra hour of shooting, which also led to various other charges. A few budgeted items such as extras and meal penalty, however, came in at less the cost, and slightly offset the day's deficit. Thus, on that particular day the production was behind schedule, took longer, and cost more than planned.

3.7.2 Productivity Measurement

"Productivity" describes how efficiently a company transforms inputs into outputs. It measures the units of product or service produced per inputs such as employees or unit of time, space and capital investments. This can be expressed, in principle, by the ratio $\frac{\text{Output}}{\text{Input}}$. The higher the ratio, the greater the productivity.

74 Manchester Metropolitan University. "PERT Analysis Toolkit." *MMU*. Last accessed April 19, 2017. ► http://www2.mmu.ac.uk/media/mmuacuk/content/documents/bit/PERT-toolkit-v1.pdf.

75 Wild, Ray. *Production and Operations Management*. London: Cassell, 1995.

76 Honthaner, Eve Light. *The Complete Film Production Handbook*. Boston: Focal Press, 2001, 27–34.

77 Patz, Deborah S. *Surviving Production: The Art of Production Management for Film and Television*. Studio City: Braun-Brumfield, Inc., 114–122.

78 Kindem, Gorham and Robert Musburger. *Introduction to Media Production*. 2nd ed. Woburn: Focal Press, 2001, 55–60.

Table 3.4 Example for daily cost overview accounting

Show_____*Another Day, Another Dollar*_____
Prod. #_2777_____

Date____07/05/2017_____ Day#_4_____

Start Date:_07/01/2017_____
Scheduled finish:_07/18/_2017____Revised Finish:__07/20/2017_____

	Per call sheet	Shot	Ahead/behind
# of scenes	6	4	2 behind
# of pages	5 3/8	4 5/8	6/8 behind
	Budgeted	Actual	Cost overrun (-)
Cast overtime	$5,000	$6,500	$1,500-
Shooting hrs.	12	13	$20,000-
Meal penalty	$500	$300	$200
Extras	$632	$577	$55
Catering	$840	$960	$120-
Technical equipment	$2,250	$1687	$563
Unanticipated	Addt'l prop asst.	10 hrs. @ $22/hr.	$242-
	Fringe		$44-
		Total for today_____$21,088-	
		Previous total _____$4,000-	
Grand total_____$25,088- (over)			

Table based on "Daily Hot Costs" figure from Honthaner, Eve Light. "Basic Accounting." *The Complete Film Production Handbook*. New York: Elsevier, 2010.

Table 3.5 Film investments, revenues, and ROI

	Investment/film (US$ million)	Worldwide tickets/film	Worldwide tickets/ investment	Overall Revenue/ investment	Return on investment
USA	70	17	0.24	1.27	0.27
Europe	7.5	0.6	0.08	0.40	−0.60
India	1.5	3.5	2.33	1.19	0.19

Operationalizing this, the following are measures for such an output/input relationship:

1. Revenues/employee;
2. Value-added/employee;
3. Revenues/cost of inputs;
4. "Total factor productivity" (output not caused by individual inputs).

Different methods of measuring productivity yield different insights, as Table 3.5 shows, which compares productivities for film for the USA, Europe and India. When outputs are measured in physical units (i.e. films or TV shows), Hollywood's productivity is much lower than that of India or Europe. The investment required

per unit produced is $70 million per film in the USA vs. $7.5 million in Europe and $1.5 million in India. But, when output is measured by tickets sold per invested dollar, India shows the highest number per dollar, at 2.33, while Europe is very low at 0.08. The USA is in between at 0.24. The Hollywood big budget is spread over a much larger audience, and its production budget per actual viewer is, hence, smaller than for a European film. For each ticket that is sold, Hollywood spends significantly less than its European counterparts. Its budget is much higher, but so are the number of ticket sales it generates per film.

On a per-ticket basis, Bollywood is even more efficient. But, when output is defined as revenues generated per investment, Hollywood at $1.27 per dollar of investment becomes more productive than India ($1.19), and much more productive than Europe ($0.40). In Europe, films on average thus lose 60 cents on the dollar, and the deficit is made up by non-theater revenues, subsidies and co-production with TV networks. In India, films return 0.19 cents on the dollar, while in the USA they return 0.27 cents on the dollar.

When it comes to the productivity of individual creators, this is difficult to measure and such measurement is deeply unpopular with creatives. It is most accepted for software programming, where metrics for measuring productivity in software development exist, and data can be tracked and collected fairly easily.

For other types of writing, one method of measurement involves tracking production *output*, such as articles or pages completed by journalists, scriptwriters, or editors.[79] A daily one-hour soap opera episode requires the production of [80] about 75 pages of script per day by a writer or a team. However, such an output-oriented approach lacks considerations of quality or of difficulty. It takes much less effort for a journalist to cover a routine sports event than to break a local corruption story. Other ways to measure journalistic productivity therefore include measuring *input* activities undertaken by journalists, such as interviews conducted. A third and more recent approach, made possible by online publishing tracking technology, is to count 'clicks', 'hits', or time spent by readers; in other words, measuring the *ratings* of a story in terms of its audience. What size readership does the writer generate? Neither of these approaches is particularly satisfactory for an individual story or day—let alone for the quality of journalism—but, over time, the numeric aggregates may reveal trends.

3.8 Revenue Shares of Producers in Media

The overall revenues of a medium must, in the final analysis, be split up among producers, creators, distributors, suppliers, wholesalers, retailers and so on. For all of their efforts, what is the approximate share that the producers receive from the overall consumer spending for their medium? ◘ Table 12.2 in ▶ Chap. 12 Distribution of Media and Information shows the average numbers for various media industries.

On average, for 18 media industries, the share in revenues that is going to producers is above 44%—by far the largest share, much higher than for retailers, wholesalers and creators. However, a producer's share also covers various inputs, components, and materials bought from suppliers.

For theatrical film, the producers' net share is low at 14%, the share for distributors (i.e. the studios) is 30%, for theaters (exhibitors) 45% and for creators 11%. A film producer's share rises to 20% for pay-TV and to 22% for online distribution. These increases can be explained by the lower share for retailers.

3.9 Content Production in the Next Generation of Technology

Although the cost of production hardware has declined, thus enabling the entry of small independent producers, it would be a mistake to believe that overall production costs have therefore dropped. Hollywood's average "negative costs" for a film rose from $47.7 million in 2001 to $88.6 million in 2011. This rise in production costs will be even greater with next-generation content based on broadband and ultra-broadband connectivity throughput. These elements will create entertainment experiences with user immersion, user participation and some user control.

79 Picard, Robert G. "Measuring and interpreting productivity of journalists." *Newspaper Research Journal* 19, no. 4 (Fall 1998): 71–84.

80 Allen C. Robert. *Speaking of Soap Operas*. Raleigh, NC: University of North Carolina, 1985, 46–73.

The lower costs of technical equipment apply to everybody and, as a result, much more content is being produced and supplied. As content supply grows relative to the fairly steady stock of attention, the general expectations on production quality standards rise, and with them the cost of production. There will thus be an even greater pressure for "blockbuster" content that stands out from the crowd, and for content that makes the most of the multi-media and interactive features of broadband communications.

To produce such content is expensive. It requires creativity, programmers, performance testing and the continual generation of new versions. The production of the film *Avatar* required 900 graphic designers.[81] Such content exhibits strong economies of scale on the content production side, and strong network effects on the demand side.

At the same time, the broadband Internet means that such content can be distributed globally at a relatively low cost. This has been termed "the death of distance." People in Peru, Panama and Portugal can select, click and download. The protection of distance is thus giving way, as are many of the protections of regulation and licensing.

The content itself exhibits strong economies of scale. Once produced, it can be reproduced at almost no cost. Of course, there will also be opportunities for other producers to create and distribute specialized programs for niche and general audiences. Providers and producers will also emerge in other production centers, such as India, Europe, or Japan. They will be based on the cultural, technological and financial resources of those regions.

There is also room, in creating innovative content, for new ideas on content, format and interactivity to come from new directions and new firms. New types of content production specialists will emerge on the technology side, often in the Silicon Valley cluster of innovation.

The major audiences will still be attached to big-budget and technically sophisticated productions that combine glitz with technology. In this environment, Hollywood will be even stronger, because it will have a more direct link to global audiences. It does not have to go through the intermediaries of TV networks, and will pass through fewer regulations of governments. It has also the ability to fine-tune prices. And it can also deploy in its network of specialists the talent and creativity from anywhere—animators from Japan, special effects software in India, post-production in Shanghai, venture finance in London, technologists in Silicon Valley and advertising companies in New York.

Such a networked firm structure can cope with change and innovation. It is strengthened by more powerful communications pipes, since the clustering can spread beyond those of geography. Thus, "Hollywood" will become less of a description of geography and more of an industry structure.

3.10 Case Discussion

Canal Plus and the Hollywood Advantage

In the pursuit of claiming a global role in content production comparable to that of the Hollywood content companies, Canal Plus has strategic options, or a combination thereof:

1. Buy Hollywood (and European) studios;
2. Seek governmental support;
3. Vertical integration of content and distribution;
4. Multi-platform integration;
5. Expand language reach;
6. Globalization of content;
7. Sign up stars;
8. Advanced technology;
9. High budgets;
10. Cheap and large financing;
11. Diversification;
12. Shift to a two-tier system of independent producers and co-producers.

Strategy 1: Buy Hollywood (and European) Studios

In the early 1990s, Canal Plus bought the library of the failing Carolco Studio in Hollywood. More significantly, in 2001, the parent company Vivendi bought Universal Film and Universal Music—both of them top American and global media firms. But, in 2004, in financial distress, Vivendi sold 80% of

81 Webneel. "3D Animation Movie Making Process and Behind the Scenes – Avatar." Last accessed April 19, 2017. ► http://webneel.com/3d-animation-movie-making-process-and-behind-scenes-avatar.

Universal Film to the American conglomerate General Electric (GE) in return for $14 billion and a 20% partnership in NBCUniversal, which GE created by combining its NBC TV subsidiary with Universal. In 2011, Vivendi sold the remaining 20%, for $5.8 billion to GE. Thus, this strategy proved unsuccessful for Vivendi.

Strategy 2: Seeking Governmental Support

The French film industry is subsidized in a variety of ways. The Centre Nationale de la Cinematographie (CNC) contributed about $500 million per year. There is also support by several regional governments. France requires theaters to reserve 20 weeks of screen time per year for French (now European) films. DVDs cannot be sold or rented out for six months after the end of theatrical distribution.

There are also subsidies from the EU. EU support has a budget of €1.46 billion for the Creative Europe Programme. Although publicly advocating an absence of national support programs, in 2013 the EU Commission, in *New State Aid Rules for Cinema*, adopted new film-support rules that permitted aid to be "limited" to 50% of the production, distribution and promotion budget. Co-productions funded by more than one Member State may receive aid of up to 60% of the production budget. There are no limits on aid for scriptwriting or film-project development, or for "difficult" audiovisual works, and definitions were left open. Territorial spending obligations are permitted as long as they do not exceed 80% of the production budget."[82] There are also film subsidies in other countries where Canal Plus films are being created. But perhaps the largest support element are the tax shelters known as Sociétés de financement de l'industrie cinématographique et de l'audiovisuel (SOFICA) where wealthy investors can write off 40–50% of the investment against their tax obligations.

The strategy enlisting government support for cultural activities is traditional in France, as it is in many countries. Canal Plus has been effective in making use of this and extending it, and receiving significantly more governmental financial and tax support than Hollywood studios. This has raised French film production above that of other European countries. But it also has drawbacks. In that system of subsidies, in effect, various bureaucratic bodies decide what will be produced. As one young director put it—anonymously, since he did not wish to offend the funding committees—"Every one seems to have a suggestion on what to do—add a character here or there, change the ending, etc."[83]

Strategy 3: Vertical Integration of Production and Distribution

A common view is that Hollywood firms dominate through their greater vertical integration. Canal Plus therefore set out to do the same. It became the predominant French and European distribution system (through pay-TV and film distribution), and a major producer of filmed content. There are similar vertical integrations of production and distribution in Germany (Bertelsmann with its divisions RTL and Ufa) and in Italy, with Mediaset and its film and TV production, including the large Dutch TV producer Endemol Media. Canal Plus/Vivendi has been successful in pursuing this strategy to provide its pay-channels with in-house content. But such content would have been forthcoming anyway from other providers, given the dominant role in retail pay-TV distribution which Canal Plus has. Neither European nor American content can easily bypass Canal Plus, and this, not the vertical integration, gives Canal Plus an economic advantage.

Strategy 4: Multi-Platform Integration

A common view is that Hollywood content providers dominate through their greater horizontal multi-platform, multi-media integration.

Actually, no Hollywood company has been as horizontally (and vertically) integrated as Canal Plus and its parent Vivendi. Vivendi's activities include (or included) music, television, film, publishing, telecommunications (mobile) and wireline, the Internet and video games. For example, Vivendi acquired video game leader Activision Blizzard, which created successful franchises such as *Call of Duty* and *World of Warcraft*.[84] Vivendi acquired the film businesses of Universal and also the Universal Music Group, the leading music producer in the world with more than 20% of the global market.

In advertising, Vivendi took control of Havas, one of the world's largest advertising groups. In telecommunications, Vivendi acquired SFR, France's second largest mobile telecommunications company and a major Internet provider. Vivendi also acquired Maroc Telecom, Morocco's leading mobile, landline phone and Internet provider. Obviously, these platforms could be used for content distribution. However, the platforms cannot discriminate against other content providers and distributors. Neither would Canal Plus limit its content exclusively to SFR subscribers and leave out the other 75% of French mobile subscribers. That would make

82 Katsarova, Ivana. "An overview of Europe's film industry." *European Parliamentary Members' Research Service*. December 2014. ► http://www.europarl.europa.eu/RegData/etudes/BRIE/2014/545705/EPRS_BRI(2014)545705_REV1_EN.pdf.

83 Briançon, Pierre. "Politics fade from French Cinema." *Politico*. Last updated November 2, 2015. ► http://www.politico.eu/article/politics-fade-from-french-cinema-movies-culture/.

84 Hall, Jessica and Scott Hillis. "Guitar Hero meets Warcraft in Vivendi-Activision deal." *Reuters*. December 2, 2007. Last accessed June 4, 2013. ► http://www.reuters.com/article/2007/12/02/us-activision-vivendi-idUSN0236714920071202.

sense only if its content would be so important that the mobile subscribers of Orange and others would switch their subscription to SFR just to get that content. And this is unlikely. It is therefore not surprising that, in 2014, Vivendi sold 80% of SFR to the French telecom and cable company Altice for $23 billion.[85] Additionally, Vivendi acquired GVT, the leading high-speed Internet and connected television company in Brazil.

Subsequently, Vivendi came under the control of the French billionaire Vincent Bolloré, a close friend of former French president Nicolas Sarkozy. Bolloré, a major investor in Africa, also started the Direct 8 TV station and *Direct Soir*, a free newspaper. Bolloré then acquired enough shares in Vivendi to become its largest stockholder and, in 2014, was appointed chairman of the board.

In comparison, major US media companies also have a conglomerate structure, but not as strong and diverse as Vivendi's. But did this create much success for Vivendi? There is no evidence that conglomerate ownership of music, or games, or mobile phones have strengthened Vivendi beyond making it a more powerful presence as a company. The multi-platform integration, while it may make for an interesting story, did not seem to create much of an advantage in terms of synergy. Indeed, it is possible to argue the opposite—that the conglomerate structure ended up dragging Vivendi down financially. After billions of Euros in losses, Vivendi sold or spun off SFR, GVT, Havas, Activision Blizzard, Universal Pictures and Maroc Telecom. It explained these deals not as being based on financial revenue but, rather, as a way to "unlock" shareholder value. At the time, its P/E (stock price to earnings) ratio was 3–6, whereas US media companies had a multiple of about 10. In other words, Vivendi was undervalued by investors.

It is left with the music group UMG, possibly because the music business has dropped so much that no one is willing to buy UMG at a decent price. And it is not clear how ownership of music labels and distribution helps Canal Plus or a film. This leaves Vivendi with one major asset—the Canal Plus group. That unit is strong, but not because of a conglomerate structure.

Strategy 5: Expanding the Language Reach

Film companies in smaller language markets are often said to be disadvantaged in comparison with those of English-language countries. Traditionally, the French government has made major efforts to spread the French language. Canal Plus, however, took the opposite approach with a strategy to join the widespread English-language market, rather than fight it. In 2006, when Olivier Courson became StudioCanal's CEO, 90% of StudioCanal's films were in French but, by 2012, 70% of its films were in English.[86] To deal with the criticism of cultural language advocates, Courson argued that StudioCanal's goal was to add a "European touch" to English-language films. The strategy—successful, on the whole—illustrates the point that reaching world export markets can be achieved by companies from a smaller language market, but that it requires a reduction of country-specific characteristics such as language and national culture components.

Strategy 6: Content Mainstreaming and Globalization

Courson began to support international co-production and local films that could be distributed globally to a bigger market.

StudioCanal's stated production priorities are:

1. International co-production;
2. Family entertainment;
3. Elevated genre (such as *The Last Exorcism*) and complex films;
4. Local productions with international appeal.[87]

Of these priorities, 1, 2 and 4 are export-oriented and focus on popular films, whereas 3 is more culturally ambitious. StudioCanal still presents its brand as aiming at audiences with intellectual and artistic tastes. But its focus has increasingly become films that have mass appeal. Inevitably, this has led to a blockbuster orientation in which the revenue successes of its films are touted. Officially, the shift to a commercial orientation was downplayed. Courson stated that, "We at [StudioCanal] are developing more entertaining movies, but we also keep the link we have with auteurs."[88]

StudioCanal was a senior partner in the film *My Piece of the Pie* (2011) ("*Ma Part du Gateau*"). The film is about a single mother who loses her factory job and moves to Paris, where she is employed to clean the apartment of a rich broker. The film was not well received in the USA and an American critic, expecting a "French movie," noted that it was just "another glossy coffee table book of a film, presenting familiar content through handsome, instantly forgettable images."[89]

Thus, StudioCanal's films may have become less "French movie"

85 Altice tried to acquire the remainder of SFR with a stock swap but was blocked in October 2016 by the French securities regulator.

86 Pereira, Miguel Mendes. "Vertical and Horizontal Integration in the Media Sector and EU Competition Law." Presented at The ICT and Media Sectors within the EU Policy Framework, Brussels, April 7, 2003. ► http://ec.europa.eu/competition/speeches/text/sp2003_009_en.pdf.

87 Hopewell, John. "Financial Sense Yields Solid Results." *Variety*. May 11, 2012. Last accessed April 19, 2017. ► http://variety.com/2012/film/awards/financial-sense-yields-solid-results-1118053320/.

88 Barraclough, Leo. "Canal Plus at 25." *Variety*. November 2, 2009, A27-A28.

89 Sachs, Ben. "My Piece of the Pie." *Chicago Reader*. February 2, 2012. Last accessed April 19, 2017. ► http://www.chicagoreader.com/chicago/my-piece-of-the-pie/Film?oid=5502884.

for critics, but their global box office (not including the USA and Canada) increased by 32% over five years (2007–2011).[90] In France itself, in 2014, five of the top ten box-office hits were US movies. And the top three French movies were two light comedies, one of which was *Lucy*, a Luc Besson film starring the American actors Scarlett Johansson and Morgan Freeman. The film was considered "French" only because it was partially shot and produced in France.

Strategy 7: Technology
Canal Plus adopted some of the content and special razzle-dazzle effects which Hollywood employs. Audience interest led StudioCanal to finance and distribute one major 3-D computer-generated animated film per year, jointly with the Belgian 3-D company nWave. This resulted in *Sammy's Adventure* (2010), *Sammy's Adventure 2* (2012), and *House of Magic* (2013), which had a substantial production budget at $34 million.[91]

Strategy 8: Sign up Stars
A stereotype is that "European films are less concerned with A-list actors."[92] But, quite to the contrary, to broaden the appeal of Canal Plus films, its productions and co-productions include foreign stars in its own films or co-productions. Thus, Canal Plus has taken a similar approach to casting as do the Hollywood studios, by anchoring its marketing appeal on expensive big-name stars.

Strategy 9: Large Budgets
European films typically have much lower budgets than Hollywood films. But StudioCanal's budget range is now $15 million–$25 million—lower than Hollywood but higher than in the past.[93] In several co-production deals where it was the junior partner, the budget was much greater, for example, *The Tourist* (2010), was a big budget film that cost $100 million to make.

Strategy 10: Financing
When it comes to financing, it simply cannot be said that there have been no commercial funding sources for films in France aside from the government. Crédit Lyonnais was France's largest bank in the 1990s. It was owned by the French state, but became a leading lender to Hollywood in the 1980s. Crédit Lyonnais's top entertainment finance executive was Frans Afman, whose projects included deLaurentiis movies (*Serpico*, *3 Days of the Condor*) and various Cannon Films. *Pirates*, with Roman Polanski and Jack Nicholson, cost $40 million and garnered a box office of $5 million. Crédit Lyonnais also financed other independents—Carolco, New World, Vestrom, Hemdan—and many of them went to bankruptcy or reorganization. Crédit Lyonnais often funded second-rate films by second-rate production companies, often with big names past their prime but impressive to the bankers.[94] These included Katherine Hepburn, Charles Bronson, Robert Mitchell, Faye Dunaway, Shelly Winters, Elliot Gould, John Voight, Brooke Shields and Bo Derek. It also financed Grancarlo Parretti's disastrous takeover of MGM. After losing $5 billion, the bank had to be bailed out by the government. Crédit Lyonnais filed for bankruptcy in 1993. In 1996, its headquarters burned down and, with it, its data archives.

Canal Plus also diversified its funding beyond its own subscriber base. In 2011, it departed from the traditional use of bank loans and engaged in Europe's first slate financing to fund films.[95] In that slate deal, rather than buy a single film project, investors bought into a whole portfolio of films.[96]

Strategy 11: Diversification
The stereotype is that only Hollywood has the scale to diversify in content and platforms. Yet, StudioCanal currently releases around 40 movies per year in European countries, and owns rights to around 5000 movies.

StudioCanal distributes around 15 feature films each year in France directly to theaters. Distribution activities include marketing, publicity, theater owner relations and transactions, TV/cable/VOD deals, and video releases. More than 2000 StudioCanal films are available online. StudioCanal also provides films for mobile phone viewing. Thus, the company has considerable diversity in distribution and volume.

Strategy 12: A Two-tier System with a Shift to Independent Producers and Co-Producers
Just as Hollywood has created dependent-independent producers, in France Canal Plus distributes dependent films to theaters—in a shift to a two-tiered structure. With these independents, StudioCanal's involvement is mainly that of financing and distribution, but the company also makes decisions

90 MPAA. "Theatrical Market Statistics: 2012." *Motion Picture Association of America, Inc.* Last accessed March 29, 2013. ► http://www.mpaa.org//Resources/3037b7a4-58a2-4109-8012-58fca3abdf1b.pdf.

91 Hopewell, John. "StudioCanal works 'magic' on sales." *Variety*. February 7, 2013. Last accessed April 17, 2017. ► http://variety.com/2013/film/news/studiocanal-works-magic-on-sales-1118065857/.

92 Dawtrey, Adam. "Euros Create Hits on Their Own Terms." *Variety*. May 10, 2010, A14, A33.

93 Hopewell, John. "Variety's Achievement in Int'l Film Award: Olvier Courson." *Variety*. May 11, 2013. Last accessed June 4, 2013. ► http://variety.com/2012/film/news/creative-punch-meets-biz-savvy-1118053319/.

94 Stadiem, William. *Moneywood: Hollywood in Its Last Age of Excess*. New York: St. Martin's Press, 2012.

95 Saigal, Kanika. "Slate financing: StudioCanal signs Europe's first slate financing." *Euromoney*. November 2011. Last accessed April 19, 2017. ► http://www.euromoney.com/Article/2928950/Slate-financing-StudioCanal-signs-Europes-first-slate-financing.html.

96 The main investor was the European media fund, Anton Capital Entertainment, which put in about $200 million. Other investors included US-based Falcon Investment Advisors and the Bank of America, as well as the Union Bank of Switzerland and various European institutional investors representing private parties.

about the script and other artistic aspects, and may also provide technical support.[97]

Government film policy in France pursues the goal of helping artistically minded independent film producers flourish. By law, 2.125% of its considerable revenues (17% of the 12.5% that Canal Plus must invest into other films) must be allocated to films that have a budget of less than a $5.2 million per year. That comes to a pool of about $140 million per year. Canal Plus could thus cover half of the budget of 50–100 such films per year. Independent film producers account for 95% of films made in France.[98] Canal Plus helped finance at least 64% of French films, plus any films that may have been licensed or acquired later in "negative pickup deals." On one level, such support of independent producers is a positive contribution. On the other hand, when Canal Plus supports two-thirds of French film productions it also creates major dependencies and enormous cultural power. If its orientation in picking projects to support is increasingly commercial, then it also affects the entire content direction of the French film industry and, thus, French culture.

Conclusion: How Does it All Add Up for Canal Plus?

Canal Plus and its production subsidiary StudioCanal became Europe's closest counterpart to a major Hollywood studio. It is rooted in a new financial model—a pay-TV near-monopoly of a commercial company based on a de facto exclusive government license.

The official mission of Canal Plus is to create "mainstream auteur films that have audience punch without sacrificing artistic ambition." Officially, Canal Plus is trying to merge the popular and artistic, but is "mainstream auteur" yet another oxymoron? Canal Plus has said that "StudioCanal needs to avoid dependency to any one market and develop line-ups that are common for each of the three main European markets that it serves."[99] Translation: less French. It is also declared that it also needs to further focus on UK productions, which are popular throughout Europe. Translation: content that is more American-style. StudioCanal adopted a "mixed model of co-ordination and decentralization." This means StudioCanal works with other distribution and production companies and often outsources production duties. Translation: the Hollywood production model.

Though this will usually be denied, CanalPlus in the process is becoming indistinguishable from a Hollywood major. (The main difference, is that it has a government-granted virtual monopoly over pay-TV, allowing it to charge high prices. There is also a government-mandated support quota for independent filmmakers. In effect, it is a system that forces French consumers to subsidize French independent filmmakers.)

Thus, for the production and distribution of film content, certain fundamentals seem to operate. Hollywood majors, too, have moved in a direction that embraces more foreign stars, locales, themes and funding. On both sides of the Atlantic, we observe a convergence from national to global. There is also a counter-trend to more small independent filmmaking, made possible by cheaper digital equipment and online distribution. But the main viewing around the world is that of expensively produced premium products, and these have their distinct business dynamics.

3.11 Conclusion: Success Elements for Content Production

What does it take for success in content creation and production? Creativity and originality, of course. But that is not enough. Content production requires "organized creativity." The image of content creation is one of individualism. The reality, once one moves beyond an initial flash of inspiration, is one of collaborative effort, in the same way that individual inventors have largely been superseded for major innovation by organized R&D efforts by development teams of large or specialized firms.

In the media and communication sector, content creation has been an increasingly organized team effort. Newspapers, for example, rely on reporter teams, editors, a newsroom and so on. Performance arts—such as theater, dance and music—depend on troupes, orchestras and bands. Software and game companies rely on large development teams. In novels, the author (still largely the solitary creator) works with teams of editors and marketers. Other

97 StudioCanal. "Activities." Last accessed May 29, 2013. ► http://www.studiocanal.com/en/activities/france.

98 Goodfellow, Melanie. "French Producers boycott CNC over Crew Pay Deal." *ScreenDaily*. March 21, 2013. Last accessed June 17, 2013. ► http://www.screendaily.com/news/french-producers-boycott-cnc/5053189.article.

99 Hopewell, John. "Variety's Achievement in Int'l Film Award: Olivier Courson." *Variety*. May 11, 2012. Last accessed May 30, 2012. ► http://variety.com/2012/film/news/creative-punch-meets-biz-savvy-1118053319/.

books—such as educational, reference and "how-to" books—do not depend on an individual creator but, rather, rely on author and editor teams.

Content creation is a high-risk activity, trying to meet the great but unpredictable audience demand for entertainment and information. There is intense competition for audience attention. Film may be the forerunner and pathbreaker for most types of content creation. By analyzing Hollywood, we may find the success factors for content production more generally. Understanding them helps established media organizations, and independents and start-ups who seek their niche.

So, what do we deduce to be the elements of success for commercial content production? People can imagine dark conspiracies that keep Hollywood successful. Instead, they should look at it as a different business model. For most of its elements, artistry is only of secondary importance, the greater importance is managerial.

Key success factors for media production are diverse and can be grouped by focus:

Risk Reduction Techniques

Enable expensive production under uncertainty and risk through:

- A system of risk financing;
- Portfolio diversification;
- Transformation of discrete projects into a flow model.

Product Development

- Popular-taste oriented style and niches;
- A strong pipeline of project proposals;
- A strong system of selection and testing;
- Budget and cost tracking.

Organizational Structures

The most important success factor of content business is its evolving business model. That business model is important to all industries and all companies, not just in the media and digital sector.

- Project-based, ad hoc organizations with low fixed costs, and high project entrepreneurship;
- Skewed reward system as incentive to creators.

- **Put Together, the formula seems to be: *Competitive Creation and Oligopolistic Distribution***

The elements of content production reinforce each other. There is geographic clustering, as well as constant artistic and business interchange, as well as interaction and information exchange. There is also a physical agglomeration of activities, which creates proximity to skills and restructuring (disintegration) of content production. We can see these developments now moving to the breakup of electronics and other companies, with some specialist firms doing the design, others making the components, yet others manufacturing, and still others doing the marketing. Hollywood has developed this model not because of its superior access to management gurus, but because it has been engaged in a Darwinian process. Each year, about 200 major films are produced. Each of the major films costs about $70–$100 million to make, and $40 million or more to promote. Many of these films disappear within days. Thus, under the pressures to sink or swim, companies and business practices evolved and re-engineered themselves continuously.

In that model, the Big Six Hollywood studios are mostly in the business of distributing films made by small independent or semi-independent firms. The studios also finance some of them, fully or partly. They may rent them production facilities, but their share in the actual production of the major films they distribute keeps declining, and is probably less than 20% now. (There are many gray shades between outright studio production and truly independent production.)

The studio companies (and similar companies in other sectors of media) are the integrators of this system, but they themselves are small relative to their activity level: low-central bureaucracy, low overheads, low levels of risk assumption, and low employee benefits to support. Even much of management staff is project-based.

Thus, content production in film today involves hundreds of small independent production companies—some established, some ad hoc and some start-ups—that, in turn, use hundreds of specialized firms with special skills. This has restructured the industry from one of vertically integrated firms with in-house skills to one based

on specialists for hire. It forces the central media companies to concentrate on the coordination of multiple skills and elements, with an emphasis on multi-national, multi-cultural, and multi-media orientation. Their other major roles are in financing production and managing the distribution of the product.[100]

Such a model of the project-oriented, increasingly "virtual" production firm may be the forerunner model for many business operations in general, which integrates creativity with business needs:

- Decentralized;
- Networked;
- Virtual;
- Freelance;
- Global.

The major content firms, then, are mainly coordinators, integrators of the specialist firms, and branders of the final products. This may be, for many industries, the business model of the future. It would not be the first time that media has led the way for a general business transformation. The printing press led the way for an industrial mass-production system. Perhaps the film industry model, created in the Darwinian process described, is a forerunner for the next stage: the global post-industrial production system and economy.

3.12 Review Materials

Issues Covered

In this chapter, we have covered the following issues:

- What we can learn from Hollywood regarding success factors for content production;
- What the future industry structure of content production looks like;
- The role of print publishers;
- The role of music producers and video game companies;
- Whether vertical integration plays a role for the success of content producers;
- How specialization and clustering shape media industries;
- What different types of risk-reduction strategies exist;
- How diversification can lower the risk of content portfolios;
- What the development process for content looks like;
- What factors play a role in the selection and development of projects;
- How budgeting and financing impacts the production of content;
- How to set budgeting and cost control among production activities;
- How to measure productivity for content production;
- How the next generation of technology impacts content production;
- What the future of content and content production looks like.

Tools Covered

We described these tools to deal with some of these issues:

- Options approach to project selection;
- Project valuation;
- Activities-based costing (ABC);
- Release sequencing;
- Gantt charts;
- PERT;
- Critical path methods;
- Portfolio diversification of content;
- Markowitz frontier of efficient risk-reward tradeoffs;
- Process flow diagrams;
- Production and cost functions.

3.12.1 Questions for Discussion

1. What is the effect of vertical integration of production with distribution and supporting industries (books, toys, music, games) on the success of Hollywood?

100 Rifkin, Jeremy. "When Markets Give Way to Networks…Everything Is a Service." *The Age of Access: How the Shift from Ownership to Access is Transforming Modern Life*. London: Penguin, 2000, 24–95.

2. What media production industry (book publishing, Hollywood, TV, video games) is least dependent on the others? Why? Is that an advantage or disadvantage?

3. Which characteristics of major non-Hollywood industries (automobiles, manufacturing, services) should Hollywood adopt to better itself?

4. How can one define and measure productivity in content production? Is it increasing?

5. How will advancements in technology influence the future of film production? Newspaper production?

6. How can the European film industries become more financially successful? Why, in contrast, are European book publishers more successful?

7. Is the Hollywood production model a suitable model for other industries of the economy? What is an example?

8. What are the ingredients of successful content production in music? What do they suggest for content production in general?

9. Can content production be organized on an industrial scale? How can mass-production accommodate individualized creativity?

10. Where can industrial production processes be applied to the content industry?

3.12.2 Quiz

1. Of the following answers, which one is *not* a reason for the unfavorable economics of theater?
   A. Expensive to promote.
   B. Difficult to create special effects.
   C. Expensive to produce.
   D. Expensive to distribute.

2. When did Hollywood produce the most films annually?
   A. 1950s and 1960s.
   B. 1990s and present day.
   C. 1920s and 1930s.
   D. 1970s and 1980s.

3. The television and the film industries have always worked together to maximize their profits.
   A. False.
   B. True.

4. The video game industry is becoming more creative with their products and taking more financial risks.
   A. True.
   B. False.

5. Of the choices below, which country annually produces the most films per population?
   A. France.
   B. Italy.
   C. United States.
   D. Germany.

6. Films with which ratings are the most profitable for Hollywood?
   A. R-rated.
   B. PG-13 rated.
   C. PG-rated.
   D. G-rated.

7. Which of the following is *not* a 'negative cost' for a production company?
   A. Printing.
   B. Paying "below the line" cost.
   C. Film editing.
   D. Script development.

8. Which of the following is a disadvantage of vertical integration?
   A. Raising of entry barriers for competitors.
   B. Cross-marketing possibilities.
   C. Alternative distribution for independent films.
   D. Creation of captive suppliers and buyers.

9. What structure is today's media production firm taking on?
   A. Market model of the firm.
   B. Centralized firm model.
   C. Network firm model.
   D. None of the above.

10. In Hollywood, along with the music and video game industry, which is more important?
   A. Cost reduction.
   B. Revenue generation.

11. Which of the following is *not* a reason for Hollywood's project selection success?
   A. Hollywood has learned to influence legislation.
   B. Hollywood has a superior selection system to other film industries.
   C. Hollywood has first pick of the best projects.
   D. Hollywood has available investment funding for development.

12. A strong financing structure to invest significant capital in movies is missing from the European film industries relative to the structure of Hollywood financing.
   A. True.
   B. False.

13. Which of the following is not a risk-reducing strategy in production?
   A. Insurance.
   B. Higher pricing.
   C. Step-wise investment.
   D. Diversification.

14. Which of the following statements is true of the magazine publishing industry?
   A. Despite the recent mergers of global media companies, companies that publish magazines only can still prosper as only 160 of over 22,000 magazines have a circulation over 500,000.
   B. With the mergers of global media companies, there are only a handful of companies which print 22,000 consumer magazines.
   C. Both are true.
   D. Neither is true.

15. Which factor influences the production budget of music recording?
   A. How many recordings the label thinks it can sell of the artist.
   B. Reputation and experience of artist.
   C. Genre of music.
   D. All of the above.

16. The primary coordinator for a new film in many countries outside the United States are:
   A. The distributors.
   B. The talent agency.
   C. The executive producer.
   D. The director.

17. Which of the following is *not* a media product content category?
   A. Profit-driven.
   B. Segment-driven/niche.
   C. Talent-driven.
   D. Marketing-driven.

18. What are the limitations of the program evaluation and review technique (PERT)?
   A. May only be a guess.
   B. Consistently under-estimates the expected project.
   C. Activity time estimates somewhat subjective.
   D. All of above.

19. In a Broadway theater production, what two aspects make up nearly 40% of the budget?
   A. Physical production and advertising/marketing.
   B. Advertising/marketing and salaries.
   C. Physical production and salaries.
   D. Salaries and general administrative.

20. What is not a way to reduce risk in content production?
   A. Market forecasting.
   B. Insurance.
   C. Shifting of risk to others.
   D. Specialization.
   E. Hedging.

Quiz Answers

1. A
2. C
3. A
4. B
5. A
6. D
7. A
8. D
9. A
10. B
11. B
12. A
13. B
14. A
15. D
16. D
17. A
18. D
19. A
20. D