

Please cite this article as:

Landoni P, Dell’Era C, Frattini F, Messeni Petruzzelli A, Verganti R and Manelli L (2019).
**Business Model Innovation in Cultural and Creative Industries: Insights from Three Leading
Mobile Gaming Firms**
Technovation.

(DOI: <https://doi.org/10.1016/j.technovation.2019.102084>)

Business Model Innovation in Cultural and Creative Industries: Insights from Three Leading Mobile Gaming Firms

Abstract

This paper contains an exploratory analysis of the business model innovations (BMIs) that firms in cultural and creative industries (CCIs) undertake along their life-cycle. Despite the role that creative and cultural and creative firms (CCFs) have in the economic development of industrialised countries, they tend to remain small and often fail due to industry-specific constraints and tensions, such as the lack of managerial capabilities and complexity in nurturing value chain relationships. However, there has been relatively limited scholarly interest into the specific conditions and processes that enabled CCFs to overcome these liabilities, and in particular into the identification of the business models they have adopted along their life-cycle. In this paper, this issue is analysed by using the concept of BMI, which sheds light on how the reconfiguration of the activity system through which a CCF creates, delivers and captures value enables the exploitation of entrepreneurial opportunities over time. This paper builds on an in-depth historical study of three leading firms operating in the mobile gaming industry, namely Rovio, Zynga and King Digital Entertainment. Three main results emerge from this study. First, in the ramp-up phase of their life-cycle, CCFs organize their resource architecture to build a strong and recognized reputation. Second, in the development phase, BMI is used to leverage new distribution paradigms. Finally, in the maturity phase, firms dedicate resources to innovate their product portfolios by providing platforms that support the development and testing of new creative ideas and solutions. Findings and implications are then discussed.

Keywords: Cultural and Creative Industries, Business Model Innovation, Resources, Gaming

1. Introduction

Cultural and creative industries (henceforth CCI) are defined as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property” (DMCS UK, 2001; p. 4). These industries are increasingly acknowledged as crucial to both social and economic development (Henry, 2007; KEA European Affairs, 2008; UNCTAD, 2008) and have attracted the growing interest of management scholars due to their idiosyncratic characteristics, which determine specific challenges to their management and their ability to compete (Peltoniemi, 2015). This study seeks to analyse these dynamics in creative and cultural firms (CCFs) by adopting a business model perspective, and answering to the following research questions: what business model innovations (BMIs henceforth) do successful CCFs undertake along their life-cycle? More in particular, which are the typical BM dimensions these CCFs innovate over time?.

Cultural and creative firms are acknowledged to suffer from chronic resource constraints and growth issues (HKU, 2010). This is ascribable to the need of entrepreneurs in these firms to manage at the same time the creative side of the business and a complex set of relationships with a very articulated value chain (De Bruin, 2007; Henry, 2007). For instance, firms in the film and music industry are embedded in a complex network of relationships and frequent interactions with producers, studios, distributors and providers of financial resources (Urbinati, Chiaroni, Chiesa, Franzò, & Frattini, 2019). However, the entrepreneurs in these firms have typically a creative background, so they are supposedly more interested in the creative aspects of the business, lacking managerial capabilities and experience, as well as a common language that would allow them to interact successfully with the various stakeholders (Sundbo, 2011).

This notwithstanding, there are examples of CCFs that have managed to resolve these tensions and to significantly grow over time (Abecassis-Moedas, Mahmoud-Jouini, Dell’Era, Manceau, & Verganti,

2012; Dell’Era, Landoni, & Verganti, 2015). This is the case, for instance, of IDEO in the design industry and King in the gaming one. Given these premises, it is somehow surprising that existing research has not studied the specific conditions and processes that enabled those CCFs to do so, without considering the business model (henceforth BM) as the main conceptual pivot of the analyses. In fact, although the existing literature has highlighted BM as one important strategic instrument that may enable firms to gain competitive advantage and sustain growth (Sosna, Trevinyo-Rodríguez, & Velamuri, 2010), there is a dearth of studies about how CCFs can reconfigure their own BM *vis-à-vis* the challenges they face during their life-cycle. This is even more important considering the distinctive characteristics of CCIs, such as the nature of the traded goods and the existence of tensions between artistic ambition and financial gain, which are very likely to affect the CCFs’ choices to innovate the configuration of the BM (Foss & Saebi, 2018; Zott & Amit, 2010b).

An exploratory historical analysis of three leading and highly successful firms operating in the mobile gaming industry, namely Rovio (with Angry Birds), Zynga (with FarmVille), and King Digital Entertainment (with Candy Crush Saga) has been conducted. The gaming industry is an interesting context for the present research, because it is a CCI where the emergence of several digital technologies have enabled many innovations in the BMs adopted by CCFs, adding a further layer of complexity to the challenges usually faced in CCIs. The exploratory analysis shows that during the ramp-up phase of their life-cycle, firms organize their resource architecture to build a strong and recognized reputation. In the development phase, BMI is instead used to leverage new distribution paradigms, while in the maturity phase firms dedicate resources to innovate their products portfolio by providing platforms that support the processes of development and testing of new creative ideas and solutions. Four sections follow this introduction. Section 2 provides a literature review on CCIs and BMI. Section 3 describes the rationale and the methodological steps underpinning the historical analysis. Section 4 presents and discusses the

results of the empirical analysis and, finally, Section 5 addresses the implications and the limitations of this paper, and outlines directions for future research.

2. Business model innovation in cultural and creative industries

This section aims at presenting a brief review of the existing literature on CCIs and BMI, the two research streams underpinning this paper.

2.1. Creative and cultural industries

There are many definitions and alternative views of CCIs (Peltoniemi, 2015; UNCTAD, 2010). This study adopts the perspective that considers CCIs as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property” (DMCS UK, 2001, p. 4). Another definition that applies to this research domain states that “cultural industries are those that produce experience goods with considerable creative elements and aim these at the consumer market via mass distribution” (Peltoniemi, 2015, p. 41) CCIs are complex industries where consumers have a constant desire for novelty (Holbrook & Hirschman, 1982) and demand is extremely unpredictable (‘nobody knows anything’ is a common expression in the film industry) (Caves, 2000). Furthermore, CCFs face a number of managerial challenges and tensions that hamper their growth (Coblence & Sabatier, 2014; Eikhof & Haunschild, 2007).

First, it emerges the renowned tension between artistic ambition and financial gain (Durand & Jourdan, 2012; Hirsch, 1972; Lampel, Lant, & Shamsie, 2000), where in many cases the conflict is internal as many artists prefer wide distribution to profit (Gayer & Shy, 2006). According to Hui & Png (2002), the supply of artistic work has also been found to respond to economic incentives; furthermore,

economic achievements can validate the creative skills (Taylor, 2012). Research on authenticity finds evidence of financial penalties for firms appearing to pursue quick profits (Jones & Smith, 2005; Peterson, 1997; Shusterman, 1999; Svejnova, 2005). Second, the unique management tensions are also linked to the need to grant considerable autonomy to the creatives for the creation of new products, while at the same time preserving a clear strategic orientation of the company (DeFillippi, Grabher, & Jones, 2007; Hesmondhalgh, 2002). According to Wei (2012), creatives can eventually refuse strategies proposed by managers if they don't fit with their artistic integrity and meet their required quality standards. The relationship between management and creatives is therefore complex, with some authors proposing dual leadership, i.e., the combination of artistic manager and production manager (Hotho & Champion, 2011), to overcome the difficulties of monitoring and controlling the non-linear creative processes and its impact on competitive advantage (Lampel et al., 2000; Tschang, 2005).

Third, CCFs face significant resource constraints, as they have to manage creative processes, production processes and complex value chain relationships (De Bruin, 2007; Rietveld, 2011). Creative entrepreneurs are mainly interested in the creative process, have typically fewer managerial skills and limited business experience (Sundbo, 2011) and may have difficulties in communicating with businesses and managers, leading to a lack of organizational capital. Furthermore, whereas entrepreneurs are primarily motivated by the financial rewards that the exploitation of new opportunities can produce, creative entrepreneurs generally crave either artistic freedom and/or the recognition of their peers. Thus, these entrepreneurs seek to limit their managerial responsibilities and internal competition, leading to a predominance of freelancers and sole-proprietors and a lack of human capital resources in these firms.

Fourth, the highly symbolic content of the cultural and creative products creates other idiosyncratic difficulties and tensions: the features and characteristics of traditional goods and services can be easily demonstrated and evaluated by customers prior to sale, but cultural and creative products are typically experience or credence goods (Nelson, 1970). Moreover, if the critical symbolic value of the product is

largely socially constructed , then the entrepreneur has the formidable task of trying to orchestrate socially constructed perceptions of value in his/her favour (Lounsbury & Glynn, 2001).

The above-mentioned challenges tend to be also exacerbated by the so-called digital transformation, which is significantly reshaping the boundary of competition. The variety of digital technologies, such as the Internet of Things, Big Data, Artificial Intelligence, Cloud Computing, Augmented and Virtual Reality, is indeed enhancing innovation opportunities (Iansiti & Lakhani, 2014), reducing the time needed to develop and launch new products and solutions and shrinking their life-cycle (Marion, Meyer, & Barczak, 2015). Today everyone wants to be digital and fully exploit the opportunities provided by digital technologies through the adoption of new BMs (Nambisan, 2017). As highlighted by Li (2018), digital technologies have facilitated pervasive changes in business models; one of the most relevant trends is the adoption of multiple business models as a portfolio within one firm. CCFs use multiple business models to serve different markets segments, sell different products, or engage with multi-sided markets, or to use different business models over time. This in turn requires CCFs to develop and acquire new competencies for sustaining growth, which are fundamental to grow in a competitive scenario more and more characterized shaped by multi-sided platforms and their related ecosystems.

2.2. Business model innovation

The brief overview of what is known about CCIs highlights the limited attention that has been paid to the challenges that CCFs face to adapt, compete grow over time. The peculiar nature of CCIs, where the coexistence of the opposing logics of creativity and business are particularly evident and exacerbated (Eikhof & Haunschild, 2007), creates serious constraints to CCFs when attempting to thrive in a highly competitive and technologically dynamic environment. CCIs are not only a significant engine of economic growth, job creation, and social cohesion (Pratt & Jeffcutt, 2009), but also a peculiar setting characterized by new business models and able to stimulate innovation and entrepreneurship in other

sectors of the economy (Lampel & Germain, 2016; Messeni Petruzzelli & Savino, 2015). This section focuses on BMI, acknowledged as one important way to unlock innovation and value creation in CCFs (Mangematin, Sapsed, & Schüßler, 2014).

As Zott, Amit, & Massa (2011) highlight, despite the significant attention paid in the literature to the business model concept, no common definition exists. Indeed, business model is described in a number of ways including an architecture (Dubosson-Torbay, Osterwalder, & Pigneur, 2002; Timmers, 1998), a statement (Stewart & Zhao, 2000), a description (Weill & Vitale, 2001), a method (Afuah & Tucci, 2001), a structural template (Amit & Zott, 2001), a framework (Afuah, 2003), a representation (Morris, Schidehutte, & Allen, 2005; Shafer, Smith, & Linder, 2005) and a conceptual tool or model (George & Bock, 2009; Osterwalder, 2004). More generally, a business model describes the rationale of how a firm creates, delivers and captures value (economic, social or other types of value) in relationships with a network of other actors (Afuah & Tucci, 2001; Zott et al., 2011).

Although business model is clearly linked to strategy, the two concepts have some differences. Strategy research has traditionally placed emphasis on competition, value capture and competitive advantage, whereas business model studies focus more on cooperation, partnerships and joint value creation (Magretta, 2002; Mansfield & Fourie, 2004; Seppänen & Mäkinen, 2007). According to Casadesus-Masanell & Ricart (2010), a business model refers to the logic of the firm, the way it operates and how it creates value for its stakeholders. Instead, strategy is the choice of a business model through which a firm will compete. Research shows that business models change and are subject to innovation over time, especially in those firms experiencing fast growth and continued success (Sosna et al., 2010). BMI may result in superior value creation (Morris et al., 2005) and may allow overturning established market positions (Magretta, 2002). BMI has been considered as a potential source of firm heterogeneity and competitive advantage (Markides & Charitou, 2004), markedly different from the traditional firm-level product-market strategies (Christensen, 2001). Indeed, firms may address the same customer needs

and pursue similar product-market strategies, but use different business models. Therefore, BMI and product-market innovation are complements, not substitutes (Zott & Amit, 2008).

The components of a business model have been conceptualized and mapped into very different frameworks. For instance, Johnson, Christensen, & Kagermann (2008) contend that a business model entails a customer value proposition, a profit formula, key resources and key processes. Chesbrough & Rosenbloom (2002) argue that a business model includes value proposition, market segment, structure of the value chain, cost structure, profit potential, position of the firm within the value network and competitive strategy. Osterwalder and Pigneur (2010) call their framework Business Model Canvas and it includes customer segments, customer relationships, channels, value proposition, revenue streams, key activities, key resources, key partners and cost structure.

Although BMI and disintermediation and re-intermediation are reshaping CCIs (Svejenova, Planellas, & Vives, 2010) and despite that BMI is recognized as key for fast growth and sustained competitive advantage, no studies have investigated how BMI can be a useful instrument that may help CCFs to solve the typical CCIs' idiosyncratic, structural tensions that have discussed above. This is what the present study aims at unravelling through the exploratory, historical analysis illustrated in the next section.

3. Research Methodology

The empirical research method employed for this study is historical analysis, i.e., the process of assembling, critically examining and summarizing records from the past (Gottschalk, 1969). In particular, the authors collected records about the BMIs introduced by the three selected mobile gaming companies (i.e. Rovio, Zynga, and King Digital Entertainment) from 2009 and 2014. Historical analysis is characterized by relying on information and data collected at the time when the phenomena under scrutiny took place and gathered from multiple sources (i.e., different scholars, market experts,

journalists). In addition, it enables to easily capture the temporal and chronological dimensions of events that unfold over relatively long periods of time. For these reasons, historical analysis is particularly suited to the exploratory purpose of this paper and widely used in marketing (Golder & Tellis, 1993; Nevett, 1991), innovation (Chiesa & Frattini, 2011) and organization theory (Messeni Petruzzelli & Savino, 2014, 2015) research.

3.1. Sampling

The mobile gaming industry is the chosen empirical setting, as in this CCI technology plays the role of key enabler and is fundamental for innovation. In order to ensure rigor to the analysis, two selection criteria have been applied:

- The focus is on successful mobile gaming firms, and in particular firms that have experienced substantial growth in recent years. By doing so, the analysis is focused on critical and extreme cases (Yin, 2003). In view of the limited empirical data that could be collected through historical analysis, only polar and extreme cases were selected (Eisenhardt, 1989; Pettigrew, 1990), in which the processes in question were clearly recognized and widely analysed; as well as where emerges the adoption and mobilization of different resources for innovating their BMs along the life-cycle;
- Business model innovation has to be the main tool that the selected CCFs have used to sustain growth over time. Therefore, firms that grew *only* through launching numerous new games (i.e., through broadening their product portfolio) were not selected, instead, only those that used BMI as a primary competitive and growth strategy were deemed suitable for inclusion in this study. In particular, only those firms that have had a very focused product portfolio, built around a single and highly successful mobile game, were chosen. The purpose of this further criterion is to ensure that the BMI dynamics on the firm actions are isolated, and therefore clear, as much as possible.

This theoretical sampling is particularly appropriate for inductive, empirically based analyses, where evidence is used to unearth relationships between relevant constructs. To address the reliability concern in qualitative case study research, the authors established a sampling protocol that could be coherent with the previous selection criteria (De Massis & Kotlar, 2014; Yin, 2003). Firstly, a panel of five experts in the mobile gaming industry was included. The panel consisted of two managers with experience in this industry, two researchers involved in the “Online Gaming” Observatory of the School of Management of Politecnico di Milano, and one professor with research interests in BMI and CCFs. The “Online Gaming” Observatory is a permanent research project aimed at critically studying the online games market. The Observatory annually analyses the online gaming market quantifying both supply-side, such as games costs, providers and partners, and demand-side variables, such as gamers, game volumes and prices, in order to provide a complete and robust outlook on the Italian and international markets. The Observatory engages the leading players organizing workshops and debates. The panel was organised through six meetings, as: the first five meetings aimed at sharing the selection criteria and tentatively identified five potential firms operating in the mobile gaming industry; the final meeting was instead organized with all panel members to discuss with them the final list of three companies operating in the mobile gaming industry. Secondly, each panel member was given the above selection criteria and was asked to provide, independently from the other panel members, a list of five firms in the mobile gaming industry that satisfied these criteria. Lastly, the authors chose to study the three firms that were included in every list developed by the panel members, as: Rovio (with Angry Birds), Zynga (with FarmVille), and King Digital Entertainment (with Candy Crush Saga). The rationale behind the number of the analysed case studies is that it gives enough space to make cross-case comparisons and account for inter-case variance (Eisenhardt & Graebner, 2007). Table 1 provides some preliminary data on the firms.

Table 1: Case studies overview

Company – Game	Company description	Mobile game description
<p>1. Rovio – Angry Birds</p>	<p><i>Rovio Entertainment Ltd</i> is an entertainment company, developer, publisher and distributor of video games based in Espoo, Finland. The company started in 2003 as a mobile game development studio called Relude. In 2005, it changed to Rovio Mobile and in 2011 became Rovio Entertainment Ltd. That same year, Rovio obtained \$42 million in venture capital and purchased Kombo, a Helsinki-based animation company, releasing a series of short videos in 2012. Later that year, Rovio acquired the game development division of Futuremark. In 2013, Rovio began publishing third-party games through its Rovio Stars program. In 2014, Rovio launched Rovio LVL11 to release experimental games and now considers itself an entertainment and not a game company.</p>	<p>In December 2009, Rovio released its 52nd game <i>Angry Birds</i> for iPhone. It reached No. 1 in the Apple App Store paid apps chart after six months and continued charting for many months thereafter. <i>Angry Birds</i> is one of the top selling games in the Apple App Store and has been downloaded over 1 billion times, with paid downloads accounting for over 25% of total downloads. The game’s success is attributed to a combination of addictive gameplay, comic format and low price, and is considered a franchise with long-term profit potential. In 2010, <i>Angry Birds</i> was awarded the "Best Casual Game" at the 6th annual International Mobile Gaming Awards in Barcelona, Spain. In 2010, <i>Angry Birds</i> was named the fourth best iPhone game of all time by IGN, while in 2011 it was awarded "Best Game App" and "App of the Year" by the UK Appy Awards and "Best Game for Handheld Devices" at the Webby Awards.</p>
<p>2. Zynga – FarmVille</p>	<p><i>Zynga</i> offers social video game services and is based in San Francisco, California. The company was founded in 2007 and develops stand-alone games for mobile platforms iOS, Android and Windows Phone as well as online through its website, Zynga.com, and social networking websites Facebook, Google+, and Tencent QQ. The founder, Mark Pincus, is also CEO and Chairman of the BoD. Pincus pioneered the social gaming industry, helping redefine entertainment and bring gaming to the mainstream with over one billion people worldwide playing and connecting through Zynga games, such as <i>FarmVille</i> and <i>Words With Friends</i>. In 2009, Pincus founded a non-profit organization dedicated to using social games for social good (<i>Zynga.org</i>).</p>	<p><i>FarmVille</i> is a farming simulation social network game developed in 2009 along the same lines as <i>Happy Farm</i>, <i>Farm Town</i> and the <i>Story of Seasons</i> series. The game is based on farm management, ploughing land, planting, growing and harvesting crops, trees and raising livestock. <i>FarmVille 2</i> was released in 2012. The game is available as an Adobe Flash application via Facebook and Microsoft's MSN Games, and in 2010 was briefly available as an iPhone, iPod Touch and iPad application. After launching on Facebook in 2009, it became the most popular game on the site and maintained this ranking for over two years. However, the game then became decidedly less popular and by 2012, the ranking had fallen to seventh most popular and by 2014, to the seventy-third most popular Facebook game.</p>
<p>3. King Digital Entertainment PLC – Candy Crush Saga</p>	<p><i>King Digital Entertainment PLC</i> is a social games company (also known as <i>King.com</i>) that develops games for the web, for mobiles (iOS, Android, Windows Phone), Facebook and Windows 10. Riccardo Zacconi has headed King since co-founding the company in 2003, while Melvyn Morris, a founding partner, is chairman. King has game studios in Stockholm, Malmo, London, Barcelona, Berlin,</p>	<p>King launched <i>Candy Crush Saga</i>, a Match-3 game, on its website in March 2011. By matching a combination of 4 or 5 candies in a certain formation "special candies" are formed that clear either an entire row or column, act like a bomb clearing the 8 surrounding candies or removing all candies of the same colour. The game quickly gained popularity when it was launched on Facebook in 2012. Following its</p>

	<p>Singapore and Seattle, along with offices in San Francisco, Malta, Seoul, Tokyo, Shanghai and Bucharest. King games offer synchronized play, whereby users connect to their Facebook account while playing on their smartphone or tablet. The games are updated across all platforms, allowing players to switch from smartphone, to tablet, to Facebook. Two of their games also connect to KakaoTalk in South Korea.</p>	<p>success, later that year, King launched Candy Crush Saga on mobile (iOS and Android) with over 10 million downloads in its first month. By January 2013, it had become the most played game on Facebook and by March 2013, had over 45 million monthly users growing to over 150 million monthly users in less than a year.</p>
--	---	--

3.2. Methodology

Periodicals were the primary source of the present exploratory historical analysis. An average of 40 articles was gathered for each firm, for a total of over 120 articles. The most useful and referenced periodicals were *The Financial Times*, *The Wall Street Journal* and *Wired*, which were searched using the LexisNexis Professional web-based, full-text journal databases. A thematic content analysis (Weber, 1990) of the collected material was undertaken to cluster information around the key concepts of the study (i.e. the different components of the business models introduced by the mobile gaming companies along their life-cycle) and to facilitate the subsequent cross-case comparisons. Additional information on the financial and economic performance of the three firms and other details (such as number of employees) were gathered through an analysis of their balance sheets, accessed through Bureau van Dijk's AIDA database.

The collected material was critically analysed by the authors independently with the aim of identifying the main BMIs the firms introduced in their recent history and how they helped overcome the resource constraints and tensions which characterize CCFs. Results of the analyses were then compared and contrasted to reach a general explanation of the phenomenon. The collective interpretation of the authors was presented and discussed with the expert members of the panel mentioned above. The outcome of this process is illustrated and discussed in the next section.

The historical method implies a certain unavoidable level of uncertainty, as the researcher faces complex and sometimes contradictory empirical evidence. In selecting and accepting information, the fundamental historical analysis control criteria were therefore applied, i.e., competence, objectivity, reliability and corroboration (Golder & Tellis, 1993). In particular, the competence criterion was satisfied by using only well-respected sources, written or based on information collected when the three firms introduced their BMIs. The objectivity criterion was satisfied because the sources were written by

disinterested third parties. Reliability was ensured by using qualified periodicals, most of which have been published and respected for a long time, and this testifies for their reliability. Finally, corroboration was satisfied by accepting information only when multiple sources converged on the same interpretation of the focal phenomenon. The respect of these control criteria was also ensured by the presentation and discussion of the emerging findings with the five expert members of the panel.

4. Empirical Results

As previously mentioned, three cases of innovative CCFs operating in the mobile gaming industry were analysed. More specifically, the next sections provide a presentation and examination of the BMIs introduced by the three firms, Rovio, Zynga, King, around their three most successful games, respectively Angry Birds, FarmVille, Candy Crush Saga. Although the aim of this paper is to analyse the BMIs that successful CCFs introduced along their life-cycle, the authors also collected data about the growth experienced by the three firms over time to have a measure of their degree of success in the period under analysis. Following Achtenhagen, Melin, & Naldi (2013) and Favaro, Meer, & Sharma (2012), two different indicators were used for this purpose: the percentage growth in revenues and the percentage growth in employees.

4.1 Angry Birds by Rovio Entertainment Ltd

Rovio launched Angry Birds in 2009 as a premium title and converted it shortly after to an ad-based model. In 2010, Rovio launched the free-to-play version with an in-game advertising model where ads are integrated via a background display, in-game billboards and commercials (called BMI 1 - IN-GAME ADVERTISING). Since 2010, Angry Birds has earned revenue not only from advertisings, but also from merchandising and toys based on its characters. For instance, the game's official website offers doll plush

versions of the birds and pigs, along with T-shirts featuring the game's logo and characters. In May 2011, Mattel released an Angry Birds board game called "Angry Birds: Knock on Wood". Over 10 million Angry Birds toys have been sold thus far. Rovio opened the first official Angry Birds retail store in Helsinki in November 2011. Merchandising was very successful, with 45% of Rovio's revenues in 2012 deriving from branded products (called BMI 2 - SPIN-OFF PRODUCTS). In the subsequent years, Rovio continued pursuing this brand strategy with board games developed in partnership with Hasbro and a successful animated TV series (Angry Birds Toons). In 2013, Rovio also launched a completely new development platform that, although not directly linked to Angry Birds, can be considered as a BMI. Indeed, with this platform, called Rovio Stars, the company fine-tunes the games it selects and assists the developers with marketing and app store submissions. Rovio Stars thus acts as a publisher for small and talented groups of third-party game developers, who in turn have the opportunity to expose their games to much larger audiences (called BMI 3 - DEVELOPMENT PLATFORM). Figure 1 shows the evolution over time of the revenues and employees of Rovio. It clearly emerged that the BMIs launched in 2010 the beginning of a period of steady and significant growth for Rovio, to the point that the revenues moved from 6.5 mln € in 2010 to 173 mln € in 2013. In 2011 not only both revenues and employees significantly grew, but the former experienced a higher percentage growth in comparison to the second. Only 2014 was characterized by a moderate reduction on both dimensions, even if revenues decreased relatively less than employees, signalling a possible positive effect implied the BMI introduced the year before. Hence, data suggest that Rovio has been very successful in the period under analysis, at least in terms of growth of revenues and employees, where the three BMIs described above were introduced (Rovio Entertainment, 2012, 2013, 2014, 2015).

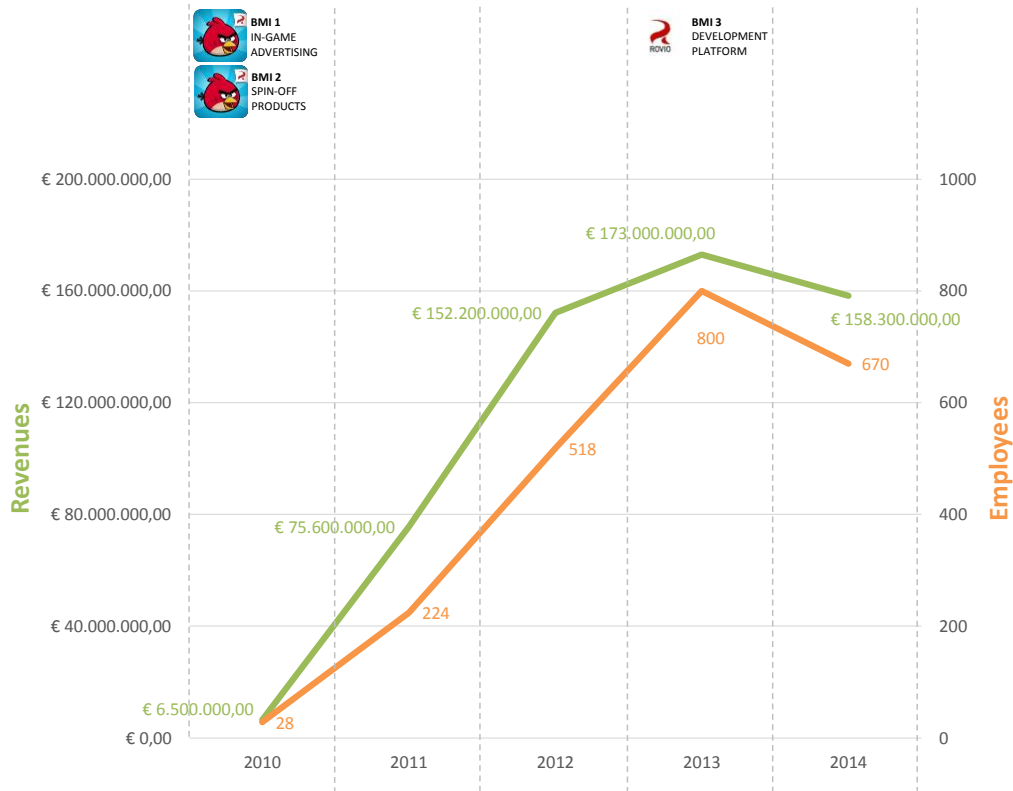


Figure 1: Rovio Entertainment Ltd revenues and employees (2010-2014)

4.2. FarmVille by Zynga

FarmVille entails developing a virtual farm. Once players start a farm, they create a customizable avatar, which they can change at any point. The game begins with an empty farm and a fixed amount of Farm Coins, the primary currency. Players can also earn experience points (XPs) when performing certain actions, such as ploughing land or buying items. The game level rises at certain XP benchmarks. As the player obtains more items and progresses through the levels, crops and animals can be acquired on the "market" using two main in-game currencies, Farm Coins or Farm Cash (in FarmVille) or Farm Bucks (in FarmVille 2), earned by levelling up, completing offers or bought with real money from Zynga. Coins can also be "earned" by completing tasks or selling crops and can be spent on basic in-game items such as seeds. Farm Cash and Farm Bucks are more difficult to acquire and can only be earned through

levelling up or completing tasks and enable acquiring further in-game items, such as additional animals, or in-game resources, such as animal feed, water, fuel and power, which are otherwise slow and/or laborious to obtain. This business model innovation is referred as BMI 1 – IN-GAME ITEMS, to highlight the fact that these in-app-purchases refer to virtual goods and not provides additional “services” or levels. In 2011 FarmVille incorporated the Facebook social networking aspect into many areas of the game. Contacting other players enabled cultivating the farm more quickly through their help, as farmhands or gaining rewards from helping them. It was a substitute for Farm Cash, giving players an effective choice between contacting many of their friends with FarmVille messages/requests or paying with real cash. FarmVille also allow players to add neighbours who are not Facebook friends, enabling the player to gain numerous neighbours who can also send gifts and supplies to each other, complete specialized tasks for rewards and join "co-ops" or joint efforts to grow a particular amount of a certain crop (called BMI 2 - SOCIAL ENGAGEMENT). In 2011, all Zynga games using Facebook integration had to remain exclusive to Facebook for the duration of the agreement and Zynga was prohibited from releasing new games on an undisclosed list of other social networks. By the end of 2011, Zynga announced plans to create its own platform where users could play the company's games, although still with major ties to Facebook. Zynga started running Facebook advertisements and sponsored stories on its website. Facebook and Zynga split the revenues as they continued their partnership (called BMI 3 - AUTONOMOUS RETAILING). Figure 2 shows the evolution over time of the revenues and employees of Zynga (Liew, 2010; Zynga, 2011, 2012, 2013, 2014, 2015). Also in this case, the analysis suggests that Zynga had been able to successfully stay on the market in the period under analysis, thus signalling the key role played by three BMIs described above. Between 2009 and 2012 Zynga saw a significant growth both in terms of revenues and employees moving from 121.5 mln \$ in 2009 to 1,281.3 mln \$ in 2012; in the same period Rovio introduced three BMIs described above. It is interesting to notice that both in 2010 and 2012, right after the introduction of the BMIs, revenues grew significantly more than

employees. The last two years of the period under analysis show significant reductions in both revenues and employees and in this period was characterized by lack of significant BMIs introduced by Zynga.

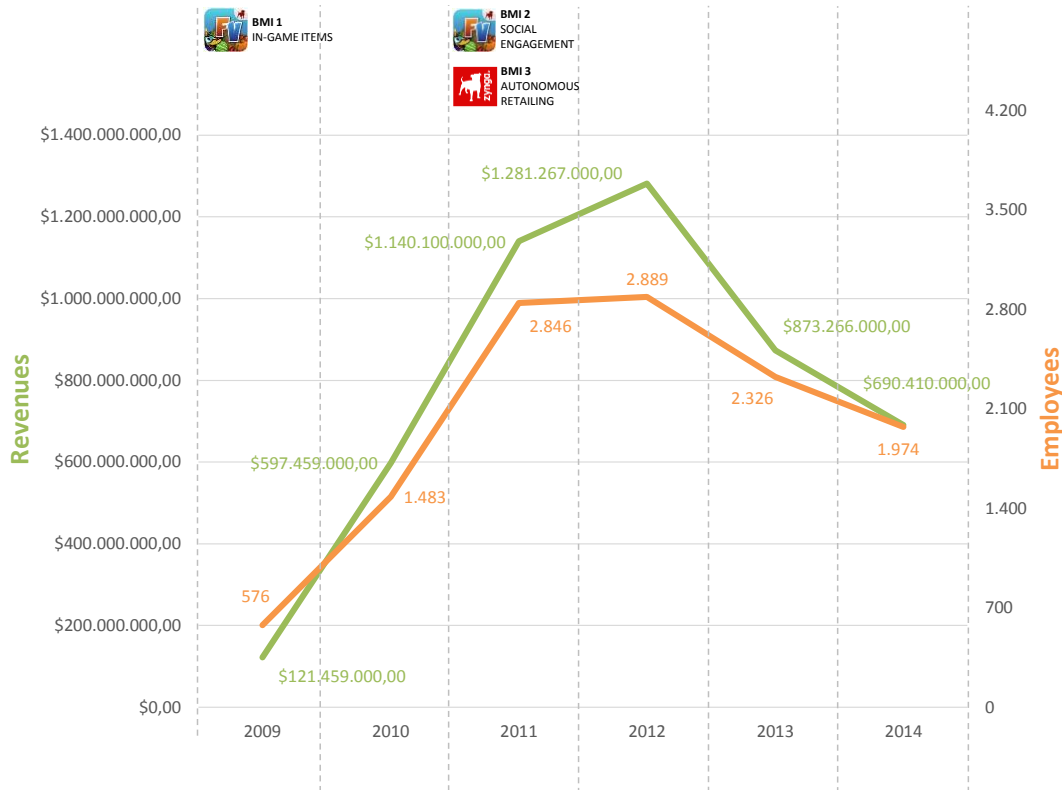


Figure 2: Zynga revenues and employees (2009-2014)

4.3. Candy Crush Saga by King Digital Entertainment PLC

Candy Crush Saga was launched by King (now part of Activision Blizzard) in 2012 for Facebook, iOS and Android. This Match-3 video game is based on different types of candies and a variation on their Candy Crush game distributed online on their own gaming and testing website (King was previously called King.com). As with other games developed by this company, Candy Crush Saga was first tested on their website and then launched (with advertising campaigns) on the distribution platforms (called BMI 1 - AUTONOMOUS RETAILING). Since 2011, King’s approach to building games entails giving

small teams the opportunity to build and launch new mini-games on King.com for testing. If the games work, they are refined and developed with more levels and prepared to launch on Facebook and mobile devices. King built, among others, a platform of social features and integration with other social platforms to allow focusing on game development (Geron, 2013). Kim Nordstrom, lead producer at King, stated that when developing new titles, "we can take the risk and it's okay to fail" (Nutt, 2013). This business model innovation is called BMI 2 - DEVELOPMENT PLATFORM, to highlight the relevance of online platform distribution and development. Since 2011 and as many other mobile games, the Candy Crush Saga game is primarily monetized through in-app purchases. For instance, players began with five "lives" that are lost on failing a level. When these lives were exhausted, users could either send requests to their Facebook friends for more lives, wait for them to replenish themselves (a life is restored every half-hour) or purchase them. However, while the game included this freemium content, 97.7% of those playing the game did so for free, while only 2.3% paid. Since 2012, King has been extremely creative in allowing gamers to buy a wide set of specific tools that help solve the various problems encountered on the different levels; boosters that help to conquer new levels can be bought using in-app purchases (called BMI 3 – IN-GAME ITEMS). Aside from the aforementioned mechanism, since 2012 gamers could compare their result (level achieved) and send gifts (e.g., additional lives) to other users, or even Facebook friends who are not yet in the game (called BMI 4 - SOCIAL ENGAGEMENT). Figure 3 shows the evolution over time of the revenues and employees of King. The figure suggests that King has been highly successful, at least in terms of growth of revenues and employees, in the period under analysis (Karlsson, 2015). It clearly emerged that the BMIs launched in 2011 and 2012 marked the beginning of a period of steady and significant growth for King to the point that the revenues moved from 63.9 mln \$ in 2011 to 2,269.4 mln € in 2014. In 2012 and 2013 not only both revenues and employees significantly grew, but the former had a higher percentage growth in comparison to the second.

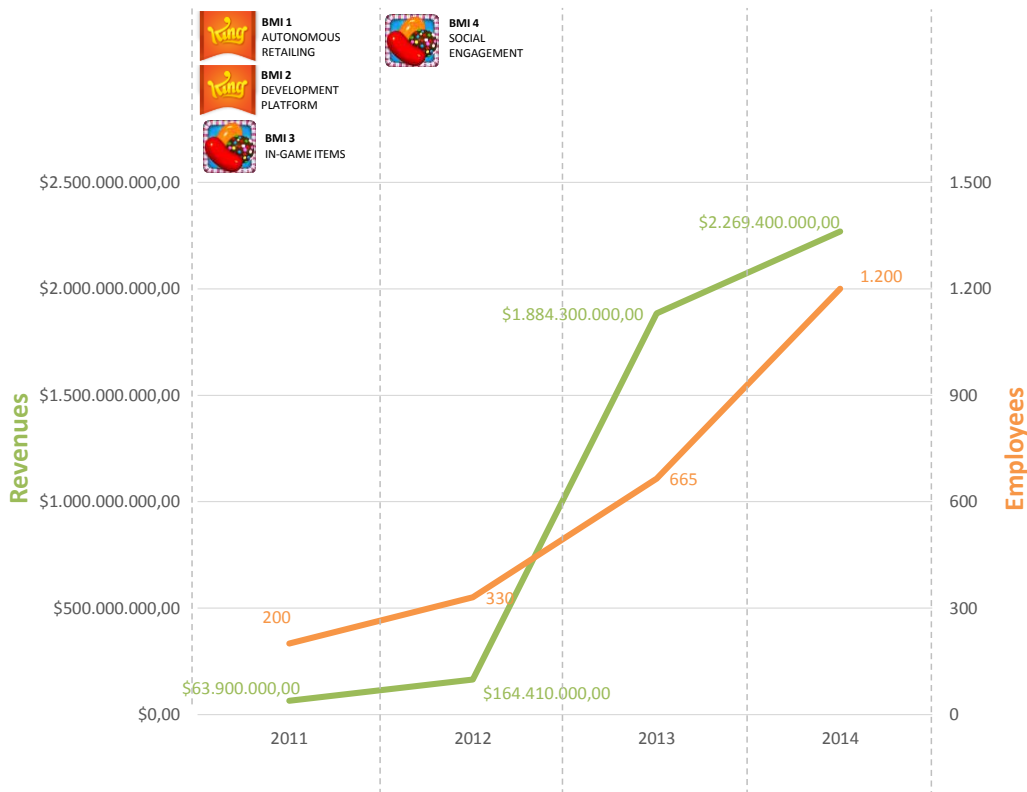


Figure 3: King Digital Entertainment PLC revenues and employees (2011-2014)

5. Discussion

The empirical results synthesized in the previous section describe the reconfiguration of the BMs that Rovio, Zynga and King introduced to leverage their idiosyncratic bundle of resources (see Table 2 for a synthetic overview). In this section, the reasons underlying these BMIs are discussed, by integrating the resource-based view of the firm (Wernerfelt, 1984) and the BMI framework put forward by Zott & Amit (2010a).

Table 2 – Overview of the BMIs introduced by Rovio, Zynga and King Digital Entertainment PLC

BMI	Definition	Rovio	Zynga	King
		Angry Birds [2010]	FarmVille [2009]	Candy Crush Saga [2011]
IN-GAME ADVERTISING	Paid video advertisings or sponsorships displayed into video games	Year: 2010 Game Age: 1		
SPIN-OFF PRODUCTS	New products derived from established characters (e.g. gadgets, movies)	Year: 2010 Game Age: 1		
IN-GAME ITEMS	Objects within the game world that can be bought by a player in order to empower a character or advance in the game		Year: 2009 Game Age: 1	Year: 2011 Game Age: 1
AUTONOMOUS RETAILING	Distribution platform owned by the company developing games		Year: 2011 Game Age: 3	Year: 2011 Game Age: 1
SOCIAL ENGAGEMENT	Engagement of new and existing customers/players through social networks		Year: 2011 Game Age: 3	Year: 2012 Game Age: 2
DEVELOPMENT PLATFORM	Technological platforms supporting the development of new games	Year: 2013 Game Age: 4		Year: 2011 Game Age: 1

Despite many critics (Priem & Butler, 2001), the resource-based view remains one of the most acknowledged theories in strategy (Barney, 2001). This theory argues that companies can gain sustainable competitive advantage by leveraging different types of resources such as brands, skilled personnel, efficient procedures, trade contacts, machinery and others (Wernerfelt, 1984). Firm resources include all assets, capabilities, organizational processes, information, knowledge and so forth that a firm controls, thus enabling it to conceive and implement strategies that improve efficiency and effectiveness (Daft, 1983). According to (Pettus, 2001), the resource-based perspective can be adopted to predict the sequencing of a firm's resources that most effectively foster growth. The results show that CCFs operating in the mobile gaming industry introduced different types of BMIs to overcome the tensions

and constraints associated with their specific resources along different phases of their life-cycle (see Figure 4).

Lack of reputation appears to be the main resource constraint that CCFs face in the *ramp-up phase* of their life-cycle, and therefore the pivot theme of the BMIs they introduce. As they are young, these entrepreneurial firms suffer from liability of newness, which puts at stake their potential creation and accumulation of reputational and symbolic capital (Dalpiaz, Rindova, & Ravasi, 2010; Lounsbury & Glynn, 2001). According to the classification proposed by Osterwalder & Pigneur (2010), during the ramp-up phase CCFs mainly focus on the customer relationship building block enriching the nature of their relationships with various customer segments. In the ramp-up phase, BMIs reflect the strive for survival of CCFs, which operate in a market where the underlying logic is “winner takes all” (Caves, 2000) and “let the market decide” (Hirsch, 1972), hence reflecting the need for quick processes that enable (1) the creation of a network of locked-in customers, and (2) the viability of the product and the related BM. The rationale behind the BMIs that are observed in this phase is to create path dependent lock-in (Zott & Amit, 2007) by, firstly, establishing a free-to-play product to tie players to the game, and then diversifying the portfolio of offered products, even in non-digital, cross-media outlets, as the game gained legitimacy and reputation (see the BMI named SPIN-OFF PRODUCTS). This is also achieved by the CCFs by acting on the demand and the willingness to pay of customers, through giving “gifts” at certain point of the game in order to facilitate engagement and repeated use (Rietveld, 2018) (see the BMI named IN-GAME ITEMS). Another key design theme in this phase is leveraging synergies from complementarities (Zott & Amit, 2017) in the architecture of the revenue capture mechanisms (Osterwalder & Pigneur, 2010). Indeed, revenue streams are generated by different partners along the value network, mainly game users (see the BMI named SPIN-OFF PRODUCTS), external advertisers (see the BMI named IN-GAME ADVERTISING) or game developers (see the BMI named DEVELOPMENT).

As the CCF grows, BMI is used mainly to reconfigure the way the focal firm interacts with the network of firms in the ecosystem and, in particular, the way through which they establish relationships with the customers and deliver their value proposition to them. From a Business Model perspective (Osterwalder & Pigneur, 2010), during the *development phase* CCFs mainly focus their efforts in addressing new customer segments and empowering the channels; more specifically the BMIs launched in this phase mainly aim at delivering the value proposition different groups of people or organizations they would reach and serve and raising awareness among customers about their products and services. A common strategic choice in the development phase has been the leveraging of Facebook network by the CCF in order to expand and strengthen the community of players (see the BMI named SOCIAL ENGAGEMENT). Nonetheless, this has been done with different levels of depth and involvement of external actors. Zynga preferred a strategic alliance, with a 70-30 split of revenues with Facebook and a five-year agreement according to which the social network would have been the only publisher of the game, thus committing itself to a higher risk operation. King on the other hand leveraged Facebook's incumbent network by integrating it directly in the gameplay, without engaging in further commitment. From a BMI theory perspective, these two sets of choices have affected different elements of the CCFs' BMs. Zynga's partnership with Facebook deeply reconfigured the design of the BM, as it affected, using Osterwalder & Pigneur (2010) classification, the infrastructure through which value is delivered and captured, as well as the revenue stream, the cost structure and the relationships with the customers. Through innovating the governance design element (Zott & Amit, 2010a), in this case, the value chain architecture, Zynga sought to unlock the full potential of the platform advantages – and reputational capital - that Facebook could give, even though it obliged Zynga to a long-term commitment with the social network. While Zynga took a direct approach to the commercialization of its digital product and exploitation of incumbent network of users, King used an indirect approach through the social engagement BMI, with relatively less disruption of their original BM, as it affected only how the

customers get to use the game. In Zott & Amit (2010) terms, King leveraged complementarity in their BM, as they bundled the use of Facebook with the way players could engage with the games. These activities reflect a crucial aspect of CCIs, that is the presence of gatekeepers that influence the way and the channels through which cultural goods are delivered and sold to customers (Peltoniemi, 2015), often because they own and control complementary assets (Broekhuizen, Lampel, & Rietveld, 2013), with evident consequences on the focal firm's pool of resources.

As firms grow, they sought to overcome the creativity constraint through product extensions; more specifically in order to continuously refresh their proposals and leverage on creative communities CCFs focus their efforts in reframing key partners, resources and activities (Osterwalder & Pigneur, 2010). Very few CCFs own all the resources or perform all the activities described by their business models; rather, they extend their own capabilities by relying on other firms or eventually individuals to increase their capability in designing new games. Furthermore human resources are particularly crucial in knowledge-intensive and creative industries; attracting creative talents through effective and stimulating environment become fundamental for CCFs. Using the classic Miller & Friesen (1984) firm life-cycle typology, in the growth phase they start to run out of innovativeness, as a more bureaucratic structure and inertia are approaching. Indeed, the product extension BMI through development platform can be interpreted as an attempt to create more value through a series of incremental innovations (see the BMI named DEVELOPMENT PLATFORM). It is common to Rovio and King that creating an autonomous platform was necessary for them to engage in co-creation processes through open innovation platforms (Calia, Guerrini, & Moura, 2007; Chesbrough, 2007; Füller, Hutter, & Faullant, 2011). Using the BMI theory lenses, the observed need for product extensions entails a change in the governance element, because it hints at a new way to conceive the relationships between the focal firm and the network of stakeholders, where the community and platform-based network governance prevails over the arm's length market system of transactions (Nucciarelli et al., 2017). By doing so, Rovio and King manage to

balance business-related goals with the creativity imperatives of the game developers, as well as extending the product life-cycle, so that they could become “enough big not to fail”, thus sustaining a virtuous cycle of activities configuration (Casadesus-Masanell & Ricart, 2010). In fact, this BMI reacts to three of the main features of (digital) CCI: goods are based on hits, have a short life-cycle and customers prefer constantly novel content (Lampel et al., 2000; Tschang, 2007).

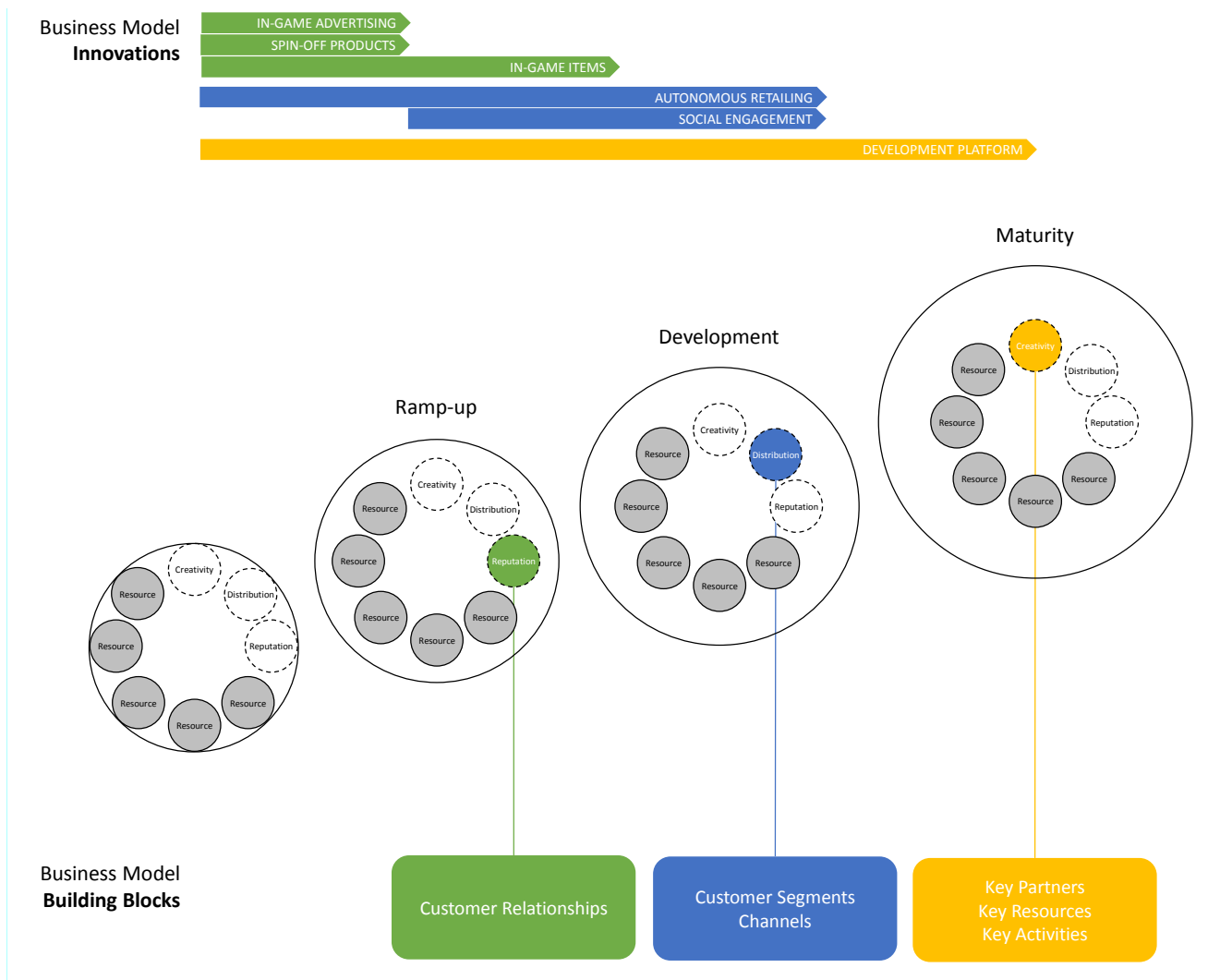


Figure 4: BM Innovations along the life-cycle of CCFs, resource gaps they overcome and BM Building Blocks

6. Conclusions

6.1. Implications to theory

The present study offers a novel perspective to enhance the current understanding of CCFs by focusing on the BMIs as a strategic tool that helps overcome the resource constraints they face along the life-cycle. Indeed, CCIs are rapidly assuming a central role in policy (UNCTAD, 2008) and academic debates (Peltoniemi, 2015), contending that despite the high potential of these industries, CCFs tend to remain small and only few survive. This paper employs the BMI lenses to analyse how firms can overcome some of the most important idiosyncratic constraints related to industry architecture and to the nature of goods they sell. In particular, a historical analysis was carried out, focusing on the three leading firms operating in the mobile gaming industry, Rovio (with Angry Birds), Zynga (with FarmVille) and King Digital Entertainment (with Candy Crush Saga) and show how they have innovated their business models along their life-cycle. Specifically, the results show the importance of overcoming resource constraints to build a strong reputation in the ramp-up phase, the need to focus on new distribution paradigms in the development phase, and finally, to dedicate resources to the creation of distributed platforms for developing and testing innovative solutions in the maturity phase.

The findings of the present study provide some important theoretical contributions. First, this paper contributes to studies on CCIs by showing the main BMI design themes and resources that CCFs can reconfigure and leverage along their life-cycle to react to industry-specific conditions and overcome idiosyncratic tensions and constraints. The ability to use quick and incremental business model reconfiguration to build recognition and reputation from customers appears to be crucial in the early stages of the venture, while the latter stages are dedicated to actually develop the infrastructure needed to serve these customers. Therefore, CCFs need to leverage their own symbolic, relational and cultural assets to develop customer relationships and scale up their business. Second, this study also speaks to the

broader entrepreneurial literature. revealing the importance of leveraging different resources in the focal firm ecosystem in the attempt to create, deliver and capture value through BMI. This finding suggests that shortages of tangible assets in entrepreneurial ventures do not need to be considered necessarily a limitation, but a trigger to re-organize the focal firm's configuration of activities and increase the proportion of value that is created and captured. Third, it also contributes to the emerging studies on the interplay between digital transformation and BM, revealing how firms exploit the novel opportunities provided by digital technologies to adapt and grow. However, digital technologies are ambivalent, because, on the one hand, they can nurture shorter and modular value chains, but, on the other hand, they may create new resource bottlenecks and gatekeepers that retain the control over critical complementary assets.

6.2. Implications to practice

The present study provides interesting implications for managers and entrepreneurs operating in CCIs. First, it underlines the relevance of BMI as one means to support growth and competitiveness of CCFs along different phases of the life-cycle, especially for overcoming industry specificities and managerial challenges. Second, it categorizes BMIs according to firms' life-cycle and related strategic priorities. Finally, the findings can guide managers and entrepreneurs in analysing the appropriate BM design choices according to the specific conditions of the industry and capabilities of the firms.

6.3. Limitations and further avenues for research

This paper has limitations that may however open the door to future lines of inquiry. Most importantly, there are clear limitations in terms of generalisability from exploratory case studies. Instead, the basis of generalisation with the case study method is analytical (Mitchell, 1983). Therefore, the aim of this paper was to make analytical generalisations to existing research on CCFs and BMI. Accordingly, the results

of the analysis can be used to further develop theoretical ideas regarding BMI in CCIs, but not to generalize about populations of firms or markets. Thereby, there is a need for more systematic analysis of the endogenous and exogenous factors affecting the phenomenon of interest. For instance, scholars may extend this research to firms operating in different CCIs, such as haute cuisine, music, film, TV and radio, where the technological innovations may interact differently with the firms' capabilities and industry constraints. Relatedly, studying *why* particular BMIs are carried out by CCFs at particular life-cycle stages, for instance from a reference point theory perspective (Fiegenbaum, Hart, & Schendel, 1996), would be very insightful. Given the ambivalent and hybrid nature of CCFs, whose identity and behaviour is constantly pulled between two opposite logics, such as creativity and profit, further research can adopt an explicit institutional logics standpoint to unravel the relationships between logics dynamics and BMI (Battilana, Fuerstein, & Lee, 2010; Pache & Santos, 2012). Another interesting area of future research would be studying how the exponential diffusion of digital technologies is opening new opportunities or creating new constraints to CCFs in their attempt to innovate their BMs (Urbinati, Bogers, Chiesa, & Frattini, 2019). In fact, this study shows that digital technologies can enable business model innovation, however, business model pivoting may induce external audiences, like customers, to perceive the CCF as inauthentic. While this effect can be applied to all types of industries, CCFs can be a particularly suitable context, since they depend more heavily on these types of symbolic and relational assets. Hence, future studies could include these effects and provide a deeper investigation of this phenomenon.

References

- Abecassis-Moedas, C., Mahmoud-Jouini, S. B., Dell’Era, C., Manceau, D., & Verganti, R. (2012). Key Resources and Internationalization Modes of Creative Knowledge-Intensive Business Services: The Case of Design Consultancies. *Creativity and Innovation Management*, 21(3), 315–331.
- Achtenhagen, L., Melin, L., & Naldi, L. (2013). Dynamics of business models – Strategizing, critical capabilities and activities for sustained value creation. *Long Range Planning*, 46(6), 427–442.
- Afuah, A. (2003). *Business models: A strategic management approach*. New York, NY: McGraw-Hill.
- Afuah, A., & Tucci, C. L. (2001). *Internet business models and strategies: Text and cases*. New York, NY: McGraw-Hill.
- Amit, R., & Zott, C. (2001). Value creation in E-business. *Strategic Management Journal*, 22(6–7), 493–520.
- Barney, J. B. (2001). Is the resource-based theory a useful perspective for strategic management research? Yes. *Academy of Management Review*, 26(1), 41–56.
- Battilana, J., Fuerstein, M., & Lee, M. (2010). Building sustainable hybrid organizations: The case of commercial microfinance organizations. *Academy of Management Journal*, 53(6), 1419–1440.
- Broekhuizen, T. L. J., Lampel, J., & Rietveld, J. (2013). New horizons or a strategic mirage? Artist-led-distribution versus alliance strategy in the video game industrt. *Research Policy*, 42, 954–964.
- Calia, R. C., Guerrini, M. F., & Moura, G. L. (2007). Innovation networks: From technological development to business model reconfiguration. *Technovation*, 27(8), 426–432.
- Casadesus-Masanell, R., & Ricart, J. E. (2010). From startegy to business models and onto tactics. *Long Range Planning*, 43, 195–215.
- Caves, R. (2000). *Creative Industries: Contracts between arts and commerce*. Cambridge, MA: Harvard University Press.
- Chesbrough, H. W. (2007). Business model innovation: It’s not just about technology anymore. *Strategy & Leadership*, 35(6), 12–17.
- Chesbrough, H. W., & Rosenbloom, R. S. (2002). The role of business models in capturing value from innovation: Evidence from Xerox corporation’s technology spin-off companies. *Industrial and Corporate Change*, 11(3), 529–555.
- Chiesa, V., & Frattini, F. (2011). Commercializing technological innovation: Learning from failures in high-tech markets. *Journal of Product Innovation Management*, 28, 437–454.
- Christensen, C. M. (2001). The past and future of competitive advantage. *MIT Sloan Management Review*, 42(2), 105–109.
- Coblence, E., & Sabatier, V. (2014). Articulating growth and cultural innovation in art museums. *International Studies of Management & Organization*, 44(4), 9–25.
- Daft, R. (1983). *Organization theory and design*. New York, NY: West Publishing Company.
- Dalpiazz, E., Rindova, V., & Ravasi, D. (2010). Where strategy meets culture: The neglected role of cultural and symbolic resources in strategy research. *Advances in Strategic Management*, 27, 175–208.
- De Bruin, A. (2007). Building the film industry in New Zealand: An entrepreneurship continuum. In *Entrepreneurship in Creative Industries: An International Perspective* (pp. 87–103). Northampton, MA: Edward Elgar Publishing.
- De Massis, A., & Kotlar, J. (2014). The case study method in family business research: Guidelines for qualitative scholarship. *Journal of Family Business Strategy*, 5(1), 15–29.
- DeFillippi, R., Grabher, G., & Jones, C. (2007). Introduction to paradoxes of creativity: Managerial and organizational challenges in the cultural economy. *Journal of Organizational Behaviour*, 28(5), 511–521.
- Dell’Era, C., Landoni, P., & Verganti, R. (2015). From creative individuals to creative capital: Value creation and appropriation strategies of creative knowledge-intensive business services. *International Journal of Innovation Management*, 19(2), 1550016.
- DMCS UK. (2001). Creative Industries Mapping 2001. Retrieved May 22, 2019, from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183544/2001part1-foreword2001.pdf
- Dubosson-Torbay, M., Osterwalder, A., & Pigneur, Y. (2002). E-business model deisgn, classification, and measurements.

Thunderbird International Business Review, 44(1), 5–23.

- Durand, R., & Jourdan, J. (2012). Jules or Jim: Alternative conformity to minority logics. *Academy of Management Journal*, 55(6), 1295–1315.
- Eikhof, D. R., & Haunschild, A. (2007). For art's sake! Artistic and economic logics in creative production. *Journal of Organizational Behaviour*, 28(5), 523–538.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532–550.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory Building from Cases: Opportunities and Challenges. *Academy of Management Journal*, 50(1), 25–32. h
- Favaro, K., Meer, D., & Sharma, S. (2012). Creating an organic growth machine. *Harvard Business Review*, 90(5), 96–106.
- Fiegenbaum, A., Hart, S., & Schendel, D. (1996). Strategic reference point theory. *Strategic Management Journal*, 17(3), 219–235.
- Foss, N. J., & Saebi, T. (2018). Business models and business model innovation: Between wicked and paradigmatic problems. *Long Range Planning*, 51, 9–21. <https://doi.org/10.1016/j.lrp.2017.07.006>
- Füller, J., Hutter, K., & Faullant, R. (2011). Why co-creation experience matters? Creative experience and its impact on the quantity and quality of creative contributions. *R&D Management*, 41(3), 259–273.
- Gayer, A., & Shy, O. (2006). Publishers, artists, and copyright enforcement. *Information Economics and Policy*, 18(4), 374–384.
- George, G., & Bock, A. J. (2009). *Inventing entrepreneurs: Technology innovators and their entrepreneurial journey*. Upper Saddle River, NJ: Prentice Hall.
- Geron, T. (2013). How King.com zoomed up the social gaming charts. Retrieved May 22, 2019, from <https://www.forbes.com/sites/tomiogeron/2013/03/26/how-king-com-zoomed-up-the-social-gaming-charts/#36c2029f421e>
- Golder, P. N., & Tellis, G. J. (1993). Pioneer advantage: Marketing logic or marketing legend? *Journal of Marketing Research*, 30(2), 158–170.
- Gottschalk, L. R. (1969). *Understanding history: A primer of historical method*. New York, NY: Knopf.
- Henry, C. (2007). *Entrepreneurship in the creative industries: An international perspective*. Cheltenham, UK: Edward Elgar Publishing.
- Hesmondhalgh, D. (2002). *The Cultural Industries*. Thousand Oaks, CA: Sage.
- Hirsch, P. M. (1972). Processing fads and fashions: An organization-set analysis of cultural industry systems. *American Journal of Sociology*, 77(4), 639–659.
- HKU. (2010). *The entrepreneurial dimension of creative and cultural industries*. Utrecht: Hogeschool vor de Kunsten Utrecht.
- Holbrook, M. B., & Hirschman, E. C. (1982). The experiential aspects of consumption - Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, 9(2), 132–140.
- Hotho, S., & Champion, K. (2011). Small businesses in the new creative industries: Innovation as a people management challenge. *Management Decision*, 49(1), 29–54.
- Hui, K.-L., & Png, I. P. L. (2002). On the supply of creative work: Evidence from the movies. *American Economic Review*, 92(2), 217–220.
- Iansiti, M., & Lakhani, M. R. (2014). Digital Ubiquity: How connections, sensors, and data are revolutionizing business. *Harvard Business Review*, 92(11), 90–99.
- Johnson, M., Christensen, C. M., & Kagermann, H. (2008). Reinventing your business model. *Harvard Business Review*, 86(12), 57–68.
- Jones, D., & Smith, K. (2005). Middle-Earth meets New Zealand: Authenticity and location in the making of The Lord of the Ring. *Journal of Management Studies*, 42(5), 923–945.
- Karlsson, M. (2015). Culture is King. Retrieved May 22, 2019, from https://qconsp.com/sp2015/system/files/presentation-slides/QConSP2015_AgileCulture.compressed.pdf

- KEA European Affairs. (2008). The economy of culture in Europe. Retrieved May 22, 2019, from http://ec.europa.eu/assets/eac/culture/library/studies/cultural-economy_en.pdf
- Lampel, J., & Germain, O. (2016). Creative industries as hubs of new organizational and business practices. *Journal of Business Research*, 69(7), 2327–2333. <https://doi.org/10.1016/j.jbusres.2015.10.001>
- Lampel, J., Lant, T., & Shamsie, J. (2000). Balancing act: Learning from organizing practices in cultural industries. *Organization Science*, 11(3), 263–269.
- Li, F. (2018). The digital transformation of business models in the creative industries: A holistic framework and emerging trends. *Technovation*, 1–10. <https://doi.org/10.1016/j.technovation.2017.12.004>
- Liew, J. (2010). We Estimate Zynga Revenues Around \$270M In 2009 And \$240M In 2010. Retrieved May 22, 2019, from <https://techcrunch.com/2010/05/03/zynga-revenue/>
- Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management Journal*, 22(6–7), 545–564.
- Magretta, J. (2002). Why business models matter. *Harvard Business Review*, 80(5), 86–92.
- Mangematin, V., Sapsed, J., & Schüßler, E. (2014). Disassembly and reassembly: An introduction to the Special Issue on digital technology and creative industries. *Technological Forecasting and Social Change*, 83, 1–9. <https://doi.org/10.1016/j.techfore.2014.01.002>
- Mansfield, G. M., & Fourie, L. C. H. (2004). Strategy and business models - Strange bedfellows? A case for convergence and its evolution into strategic architecture. *South African Journal of Business Management*, 35, 35–44.
- Marion, T. J., Meyer, M. H., & Barczak, G. (2015). The influence of digital design and IT on modular product architecture. *Journal of Product Innovation Management*, 32(1), 98–110.
- Markides, C., & Charitou, C. D. (2004). Competing with dual business models: A contingency approach. *Academy of Management Executive*, 18(3), 22–36.
- Messeni Petruzzelli, A., & Savino, T. (2014). Search, recombination and innovation: Lessons from the haute cuisine. *Long Range Planning*, 47(4), 224–238.
- Messeni Petruzzelli, A., & Savino, T. (2015). Reinterpreting tradition to innovate: The case of Italian haute cuisine. *Industry and Innovation*, 22(8), 677–702. <https://doi.org/10.1080/13662716.2015.1122512>
- Miller, D., & Friesen, P. H. (1984). A longitudinal study of corporate life cycle. *Management Science*, 30(10), 1161–1183.
- Mitchell, J. C. (1983). Case and situation analysis. *Sociological Review*, 31(2), 187–211.
- Morris, M., Schidehutte, M., & Allen, J. (2005). The entrepreneur's business model: Toward unified perspective. *Journal of Business Research*, 58(6), 726–735.
- Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029–1055.
- Nelson, P. (1970). Information and consumer behavior. *Journal of Political Economy*, 78(2), 311–329.
- Nevett, T. (1991). Historical investigation and the practice of marketing. *Journal of Marketing*, 55(3), 13–23.
- Nucciarelli, A., Li, F., Fernandes, K. J., Goumagias, N., Cabras, I., Devlin, S., ... Cowling, P. (2017). From value chains to technological platforms: The effects of crowdfunding in the digital game industry. *Journal of Business Research*, 78, 341–352.
- Nutt, C. (2013). The processes behind King's Candy Crush. Retrieved May 22, 2019, from https://www.gamasutra.com/view/news/207499/The_processes_behind_Kings_Candy_Crush.php
- Osterwalder, A. (2004). *The Business Model ontology - A proposition in a design science approach*. University of Lausanne, Switzerland.
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation: A handbook for visionaries, game changers, and challengers*. New York, NY: John Wiley & Sons.
- Pache, A.-C., & Santos, F. (2012). Inside the hybrid organization: Selective coupling as a response to competing institutional logics. *Academy of Management Journal*, 56(4), 972–1001.

- Peltoniemi, M. (2015). Cultural industries: Product-market characteristics, management challenges and industry dynamics. *International Journal of Management Reviews*, 17(1), 41–68.
- Peterson, R. A. (1997). *Creating country music: Fabricating authenticity*. Chicago, IL: University of Chicago Press.
- Pettigrew, A. M. (1990). Longitudinal field research on change: Theory and practice. *Organization Science*, 1(3), 267–292.
- Pettus, M. L. (2001). The resource-based view as a developmental growth process: Evidence from the deregulated trucking industry. *Academy of Management Journal*, 44(4), 878–896.
- Pratt, A. C., & Jeffcutt, P. (Eds.). (2009). *Creativity, innovation and the cultural economy*. London, UK: Routledge.
- Priem, R. L., & Butler, J. E. (2001). Is the resource-based theory a useful perspective for strategic management research? *Academy of Management Review*, 26(1), 22–40.
- Rietveld, J. (2011). Profiting from digitally distributed cultural products: The case of content producers in the video games industry. In K. J. McCarthy, W. A. Dolfsma, & M. Fiolet (Eds.), *The nature of the new firm: Beyond the boundaries of organizations and institutions* (pp. 100–120). Northampton, MA: Edward Elgar Publishing.
- Rietveld, J. (2018). Creating and capturing value from freemium business models: A demand-side perspective. *Strategic Entrepreneurship Journal*, 12(2), 171–193.
- Rovio Entertainment. (2012). Rovio Entertainment reports 2011 financial results. Retrieved May 22, 2019, from <http://www.rovio.com/news/rovio-entertainment-reports-2011-financial-results>
- Rovio Entertainment. (2013). Rovio Entertainment reports 2012 financial results. Retrieved May 22, 2019, from <http://www.rovio.com/rovio-entertainment-reports-2012-financial-results>
- Rovio Entertainment. (2014). Rovio Entertainment reports 2013 financial results. Retrieved May 22, 2019, from <http://www.rovio.com/rovio-entertainment-reports-2013-financial-results>;
- Rovio Entertainment. (2015). Rovio Entertainment reports growth in games and media businesses in 2014. Retrieved May 22, 2019, from <http://www.rovio.com/rovio-entertainment-reports-growth-games-and-media-businesses-2014>
- Seppänen, M., & Mäkinen, S. (2007). Towards a classification of resources for the business model concept. *International Journal of Management Concepts and Philosophy*, 2(4), 389–404.
- Shafer, S. M., Smith, H. J., & Linder, J. C. (2005). The power of business models. *Business Horizons*, 48(3), 199–207.
- Shusterman, R. (1999). Moving truth: Affect and authenticity in country musicals. *Journal of Aesthetics and Art Criticism*, 57(2), 221–233.
- Sosna, M., Trevinyo-Rodríguez, R. N., & Velamuri, S. R. (2010). Business model innovation through trial-and-error learning: The Naturhouse case. *Long Range Planning*, 43, 383–407.
- Stewart, D. W., & Zhao, Q. (2000). Internet marketing, business models, and public policy. *Journal of Public Policy & Marketing*, 19(2), 287–296.
- Sundbo, J. (2011). Creative artists and entrepreneurship. In K. Hindle & K. Klyver (Eds.), *Handbook of Research on New Venture Creation* (pp. 328–343). Cheltenham, MA: Edward Elgar Publishing.
- Svejenova, S. (2005). “The path with the heart”: Creating the authentic career. *Journal of Management Studies*, 42(5), 947–974.
- Svejenova, S., Planellas, M., & Vives, L. (2010). An individual business model in the making: A chef’s quest for creative freedom. *Long Range Planning*, 43, 408–430.
- Taylor, S. (2012). The meanings and problems of contemporary creative work. *Vocations and Learning*, 5, 41–57.
- Timmers, P. (1998). Business models for electronic markets. *Electronic Markets*, 8(2), 3–8.
- Tschang, F. T. (2005). Videogames as interactive experiential products and their manner of development. *International Journal of Innovation Management*, 9(1), 103–131.
- Tschang, F. T. (2007). Balancing the tensions between rationalization and creativity in the video games industry. *Organization Science*, 18(6), 989–1005.
- UNCTAD. (2008). Creative Economy Report 2008. The challenge of assessing the creative economy towards informed policy-making. Retrieved May 22, 2019, from https://unctad.org/en/Docs/ditc20082cer_en.pdf

- UNCTAD. (2010). Creative Economy: A feasible development option. Retrieved May 22, 2019, from https://unctad.org/en/docs/ditctab20103_en.pdf
- Urbinati, A., Bogers, M., Chiesa, V., & Frattini, F. (2019). Creating and capturing value from Big Data: A multiple-case study analysis of provider companies. *Technovation*, 84–85, 21–36.
- Urbinati, A., Chiaroni, D., Chiesa, V., Franzò, S., & Frattini, F. (2019). How incumbents manage waves of disruptive innovations: An exploratory analysis of the global music industry. *International Journal of Innovation and Technology Management*, 16(1), 195006.
- Weber, R. P. (1990). *Basic content analysis* (2nd ed.). Thousand Oaks, CA: Sage.
- Wei, J. H. (2012). Dealing with reality: Market demands, artistic integrity, and identity work in reality television production. *Poetics*, 40(5), 444–466.
- Weill, P., & Vitale, M. R. (2001). *Place to Space: Migrating to eBusiness models*. Boston, MA: Harvard Business School Press.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180.
- Yin, R. K. (2003). *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage.
- Zott, C., & Amit, R. (2007). Business model design and the performance of entrepreneurial firms. *Organization Science*, 18(2), 181–199.
- Zott, C., & Amit, R. (2008). The fit between product market strategy and business model: Implications for firm performance. *Strategic Management Journal*, 29(1), 1–26.
- Zott, C., & Amit, R. (2010a). Business model design: An activity system perspective. *Long Range Planning*, 43(2–3), 216–226.
- Zott, C., & Amit, R. (2010b). Business Model Innovation: Creating Value in Times of Change. Working Paper WP-870, 3. <https://doi.org/10.1109/ICSRS.2017.8272877>
- Zott, C., & Amit, R. (2017). Business Model Innovation: How to create value in a digital world. *Marketing Intelligence Review*, 9(1), 19–23.
- Zott, C., Amit, R., & Massa, L. C. (2011). The business model: Recent developments and future research. *Journal of Management*, 37(4), 1019–1042.
- Zynga. (2011). Annual Reports and Proxy Statement. Retrieved May 10, 2017, from <http://investor.zynga.com/annual-proxy.cfm>
- Zynga. (2012). Zynga Reports Fourth Quarter and Full Year 2011 Financial Results. Retrieved May 22, 2019, from <https://investor.zynga.com/news-releases/news-release-details/zynga-reports-fourth-quarter-and-full-year-2011-financial>
- Zynga. (2013). Zynga Reports Fourth Quarter and Full Year 2012 Financial Results. Retrieved May 22, 2019, from <https://investor.zynga.com/news-releases/news-release-details/zynga-reports-fourth-quarter-and-full-year-2012-financial>
- Zynga. (2014). Zynga Announces Fourth Quarter and 2013 Financial Results. Retrieved May 22, 2019, from <https://investor.zynga.com/news-releases/news-release-details/zynga-announces-fourth-quarter-and-2013-financial-results>
- Zynga. (2015). Zynga Announces Fourth Quarter and 2014 Financial Results. Retrieved May 22, 2019, from <https://investor.zynga.com/news-releases/news-release-details/zynga-announces-fourth-quarter-and-2014-financial-results>