# A Strategic Roadmap for BM Change for the Video-games Industry


## Nikolaos Goumagias[1], Kieran Purvis[1], Kiran Fernandes [1] Ignazio Cabras [2], Feng Li[3], Jianhua Shao[3], Sam Devlin[4], Victoria Hodge[4], Peter Cowling[4] and Daniel Kudenko[4].

[1]Durham University, Mill Hill Lane, Durham, DH1 3LB, UK
[2]Northumbria University, CCE, Newcastle Upon Tyne, NE1 8ST, UK
[3]Cass Business School, 106 Bunhil Road, London, EC1Y 8TZ, UK
[4]University of York, Ron Cooke Hub, Heslington, YO10 5GE, UK



**The global video games industry has experienced and exponential growth in terms of socioeconomic impact during the last 50 years. Surprisingly, little academic interest is directed towards the industry, particularly in the context of BM Change. As a technologically intensive creative industry, developing studios and publishers experience substantial internal and external forces to identify, and sustain, their competitive advantage. To achieve that, managers are called to systematically explore and exploit, alternative BMs that are compatible with the company's strategy. We build on empirical analysis of the video-games industry to construct a Toolkit that i) will help practitioners and academics to describe the industrial ecosystem of BMs more accurately, and ii) use it a strategic roadmap for managers to navigate through alternatives for entrepreneurial and growth purposes.**


### 1 Introduction.

How can a video games company, construct an accurate description of its Business Model (BM) structure, communicate it internally and to key stakeholders, and identify those activities and partnerships that are compatible with its current BM architecture, helping minimising the friction while transitioning from one BM to another. This challenge is particularly important for entrepreneurs entering the industry and looking for sustainable BMs that tackle the challenges derived from the business environment. The global video games industry presents a very interesting instance because it is a relatively young industry and considered as part of the broader Creative Industries which is heavily reliant on technological advances.

The video games industry was founded in 1971, when the first video game, namely Space Wars, was commercially released by Syzygy, in partnership with Nutting associates, a mechanical, as opposed to electronic, arcade games manufacturer (Kent 2010). Video games are inherently digital products

which consist of two distinct components: software and hardware. Hardware is the physical platform that is capable of rendering the software, or the game. These two components differentiate the video games sector from the toys sector. Due to technological limitations, during the industry's first steps, software was embedded within the hardware. As a result, the first video games were physical products called, booths. Arcade games are operated via inserting coins, and as a result they are also called coin-ops. The similarities between arcade mechanical and electronic games in terms of monetisation, lead the newly founded video games industry to employ the arcade games business model (revenue model, distribution channels, resources, and partnerships).

That changed in 1972, when Atari, the evolutionary successor of Syzygy, commercially released the first console, called Atari 2600. Atari 2600 was a video games platform that was capable of rendering multiple video games. The lower production costs increased the demographic reach of the industry and repositioned the sector as a family friendly activity. This event triggered the horizontal disintegration of the industrial value chain increasing the diversity of the industrial BMs. For example developing studios and publishing companies appeared that focused mainly on the software production, marketing, and sales links of the industry's value chain. Development studios focus mainly on the design, and production of video games. On the other hand, publishers focus on the localisation, marketing, and sales of video games. However, it is quite common for publishers to own one or more development studios and they are the main source of funding for Third-party development studios.

In 2000, the advent of mobile phones (smartphones) as gaming platforms allowed video game companies to access a whole new spectrum of consumer segments (Newman 2013) and increased the demographic reach of the industry dramatically (Srinivasan and Venkatraman 2010). Nowadays, casual gaming, or mobile gaming is the fastest growing segment of the global video games industry (Feijoo et al. 2012). However, this new development unveiled the limitations of the dominant BMs (i.e., buy-to-play) in terms of offering novel value propositions and revenue models (Freemium, Free-to-play, etc.) (Marchand and Hennig-Thurau 2013). More recently, an increasing number of IT companies invest intensively in new technologies, such Cloud Computing, and Virtual reality (Facebook, Apple, and Google). These technologies can potentially challenge the current equilibrium of the industrial BM network. For that purpose, the development of a new set of tools is necessary to support managerial strategic decision-making, and encourage BM driven empirical studies.

### 1.1 Economic impact of the global video games industry

The economic impact of the global video games industry has increased significantly during the last 15 years (Table 1). The sector experienced a growth rate of approaximately 8% on average annually, which is considerably faster than the global economic growth (Euromonitor 2016). The annual turnover of the sector is estimated to be slightly above £40bn (Euromonitor 2016). In terms of sales, the largest national market is the US, followed by Europe. However, during the last year, Asia has experienced a significant increase in economic impact, following China's explosive market growth. However, the industry is also characterised by concentration, which has increased since 2009. The market share of the four largest publishers in the UK (C4) increased from 44% in 2009, to 49% in 2014 (Euromonitor 2016). This phenomenon highlights the challenges that SME's and entrepreneurs have to address in terms of navigating within a limited resource space.

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|
| **Global Market (£ mn)** | 41,035.8 | 41,366.0 | 41,199.7 | 39,244.2 | 40,013.4 | 40,147.4 |
| **Growth rate** | -0.04 | -0.001 | 0.033 | -0.06 | 0.005 | 0.06 |
| | | | | | | |
| **Largest national Markets** | | | | | | |
| USA | 14,212.3 | 13,560.8 | 12,432.2 | 11,226.8 | 11,486.1 | 11,333.6 |
| Japan | 4,624.4 | 4,629.5 | 4,866.4 | 4,556.0 | 3,440.7 | 2,820.6 |
| UK | 3,774.8 | 3,452.0 | 3,241.0 | 2,874.8 | 2,984.3 | 3,389.3 |
| Germany | 2,147.6 | 2,288.7 | 2,419.3 | 2,271.4 | 2,439.4 | 2,444.1 |
| France | 2,951.6 | 2,647.3 | 2,602.5 | 2,308.7 | 2,365.0 | 2,522.6 |
| Korea | 905.3 | 1,134.9 | 1,297.7 | 1,439.8 | 1,602.6 | 1,678.8 |
| China | 650.3 | 774.1 | 955.0 | 1,193.6 | 1,475.3 | 1,616.1 |
| | | | | | | |
| **Software (£ mn)** | 16,381.10 | 15,596.20 | 14,788.70 | 13,413.40 | 13,663.90 | 14,665.00 |
| **Hardware (£ mn)** | 18,676.30 | 18,635.20 | 17,841.50 | 15,906.90 | 15,076.90 | 13,398.20 |
| **Digital (£mn)** | 5,978.50 | 7,134.60 | 8,569.50 | 9,923.90 | 11,272.60 | 12,084.20 |
| | | | | | | |
| **Software Concentration (%)** | | | | | | |
| **C4** | 44.30 | 46.00 | 46.60 | 48.20 | 49.10 | N/A |

Table 1: The economic impact of global video-game industry. Source: Euromonitor Passport Database

It is evident that the video-games increases in terms of socioeconomic impact and it is driven by rapid technological advancements. These new technologies push the current BMs to their limits and call for constant BM innovation. These characteristics of course are not endemic within the video games industry, but are persistent in other industries as well, such as biotechnology, and IT. As a result there is an urgent need for development of new theoretically grounded frameworks, and mind maps that will help managers that operate constantly shifting environments, explore new approaches, and make informed strategic decisions. In this paper we aim to address this challenge by developing an evolutionary driven, BM focused framework that aims to help managers i) plan, analyse and describe their BM and ii) benchmark their BM and identify the potential paths of least resistance, facilitating and encouraging strategic planning.

The rest of the paper is structured as follows. In Section 2 we provide the theoretical basis of our analysis which borrows from BM literature and benchmarking practices. In Section 3 we describe the methodological implications and we present a description of the suggested framework. To highlight the frameworks functionality, we include a case study of a company (subsection 3.3). Finally, in Section 4 we summarise and conclude our analysis.

## 2 Theoretical Background

According to theory, BMs can be the locus of competitive advantage (McGrath 2010). However, rapidly changing and competitive business environments challenge the firm's performance (Zott and Amit 2007). This is particularly true for technologically intensive industries (Teece 2010). New technologies provide opportunities for product and process innovation, which require the development of new strategies. Strategic management literature suggests two approaches: i) repositioning the company within the industry, and ii) the development of unique capabilities (McGrath 2010). However, both approaches do not provide enough action space. They both advocate the development of a competitive advantage and then defend it. For that reason, both streams are supported by analytical methods rather than experimental.

However, in the context of BMs, rapid environmental changes constantly challenge the position and capabilities of companies. As a result, managers are required to evaluate their BM and change it accordingly. BM change favours experimentation because it is nearly impossible to predict what new BMs would look like (McGrath 2010; Chesbrough 2010). However, BM changes are governed by organisational inertia that is derived from the business' dominant logic of the leadership and conflicts with the previous BM (Chesbrough and Rosenbloom 2002).

In order to make the transition from one BM to the other, management could use maps of the available combinations of processes, activities and resources within the industry. Descriptive tools can be useful but they do not capture the evolutionary dynamics. As a result, toolkits that could rank the alternatives could potentially minimise the transitional friction from one BM to another. In other words, a BM benchmarking is required in order to provide both academics and professionals a map of the historical instances of BM to use either as role models or recipes for change (Baden-Fuller and Morgan 2010).

### 2.1 Benchmarking literature

There is no unanimously accepted definition of the term "benchmarking" because it is heavily influenced by the perceptions and applications of scholars and practitioners (Fernandez, McCarthy, and Rakotobe-Joel 2001). However, there have been attempts within academic literature to describe the salient features of benchmarking. For instance, according to Allan (1993), benchmarking "…is a technique that helps in measuring and comparing the performance of an existing process, product, or service, against that of the recognised best in class, both inside and outside the company". It is important to emphasise on the two dimensions of benchmarking: the importance of a "best in class", or in other words a role model, which can be identified within, or outside the borders of the organisation.

Building on that, Shetty (1993), introduced the dynamic and continuous aspects of benchmarking as "… a continuous process of measuring products, services, and practices against the best competitors, or those recognised as industry leaders". Shetty (1993) introduces the space that requires mapping in order to identify the required role models for benchmarking. Both Allan (1993) and Shetty (1993) place the processes, services, and products as the unit, and consequently the focal point of analysis. Watson (1992), on the other hand, suggests a more inclusive, and generic definition of benchmarking as a"…sequential process of learning the recipe for organisational success". Based on this constellation of benchmarking definitions, we identify three main dimensions that an effective benchmarking framework should address. First, the framework should be able to identify one or more exemplary organisation within the industrial ecosystem to undertake the position of a role model and build a process that facilitates direct comparisons between units of that ecosystem.

However, benchmarking frameworks are called to address several challenges that could potentially limit their usability and relevance. According to McCarthy (2001), benchmarking is usually static, and as a result its scope is limited within a constantly changing business environment. As a result, benchmarking tools should take into consideration this important dimension and provide managers the tools to track down these changes by using longitudinal and historical data. Based on the analysis of those data, the benchmarking framework should be capable of identifying and capturing the diversity of various facets of organisational behaviour so as to use those as benchmarking instances. Moreover, the transferability of information is important because it facilitates and encourages timely decision making towards the necessary direction, in line with the organisational strategy.

In this paper we aim to address these challenges by using the BM as our focal point of analysis, because BMs can be used both as role models and recipes (Baden-Fuller and Morgan 2010), and consequently as building blocks of benchmarking framework's five stages: (i) we use historical data and via an event analysis and evolutionary classification, we construct a classification framework that is used for (ii) strategic planning by providing the map of potential targets, which are used for (iii) direct comparison. Consequently, target BMs can be used as (iv) recipes for change and benchmarking examples for (v) verification when the change takes place.

## 3 Sample Selection and Methodology

The foundations of the suggested framework's functionality are based on a historical event analysis of the corresponding industrial context. According to theory, Historical Event Analysis (HEA) is defined as "…a longitudinal record of the timing of occurrence of one or more types of events" (Steele, 2005, p. 4). However, rather than focusing on the duration variable of the events, as in Organisational Ecology practice, we aim to establish an evolutionary derived causality between specific types of events with the emergence, or change, of industrial BM. This allows us to circumvent contingency theory in our effort to establish causality (McCarthy et al. 2000). HEA is particularly suitable for our study because of the industries young age. Consequently, HEA can be applied, without risking the omission of crucial events that could potentially erode the informative power of our results (Steele 2005).

Another characteristic that renders video-games industry as a particularly attractive test bed for studies that use the BM as a focal point of analysis is its increased reliance on technological innovation, which is the main driving force of the industry's evolutionary dynamics. Much theoretical evidence (Demil and Lecocq 2010; Chesbrough 2010; Baden-Fuller and Morgan 2010) points towards a reciprocal relationship between technological innovation and BM change. As a result, by studying the history of technological advances of the industry, in parallel with the BM change, bias can be potentially minimised. On the other hand, the efficacy of our analysis is maximised by avoiding unnecessary noise within our dataset.

Our dataset consists of 29 companies that operate on one or multiple links of the video-games industrial value chain: console manufacturers (Sony, Microsoft, Nintendo, Ouya, 3DO, Fairchild Semiconductor etc. Atari (1972 - 1980), Gaikai, OnLive, Nvidia), Arcade games manufacturers (Nutting Associates, Syzygy, Atari (1980 -1996), Capcom), Publishers (Activision-Blizzard, Electronic Arts, Ubisoft, Atari (2000 - 2009), Sega, Konami, Capcom) and Video-games development Studios (inX-ile, Revolution, RiotGames, Playgen, Bioware, Activision, Cloud Imperium, Obsidian, Eidos, Hyde). Notably, Atari has experienced several horizontal transitions on the industrial value chain corresponding to changes of the company's BM. For that reason, different periods in time correspond to different BMs for that particular company. The sample is consistent with the theoretical arguments of the literature that revolves around BMs, which positions them as theoretical constructs, or frameworks that act as role models and/or recipes (Baden-Fuller and Morgan 2010). Consequently, the BMs that emerge from our analysis act as role models (Descriptive Analytical part of the Framework) to construct the industrial ecosystem, and recipes for the benchmarking of the strategic roadmap.

3.1 Descriptive and Analytic Framework

The BMs of our sample were identified and examined using the lenses of BM Canvas (Osterwalder and Pigneur 2005). The Canvas' nine dimensions: value proposition, key activities, key resources, key partners, cost structure, channels, customer segments, customer relations, and revenue streams, allows us to minimise the bias of secondary data collections compared to other structures suggested in the literature (Afuah 2004; Tapscott, Lowy, and Ticoll 2000; Weill and Vitale 2001). Moreover, the BM Canvas constitutes a synthesis of the aforementioned approaches and consequently more inclusive.

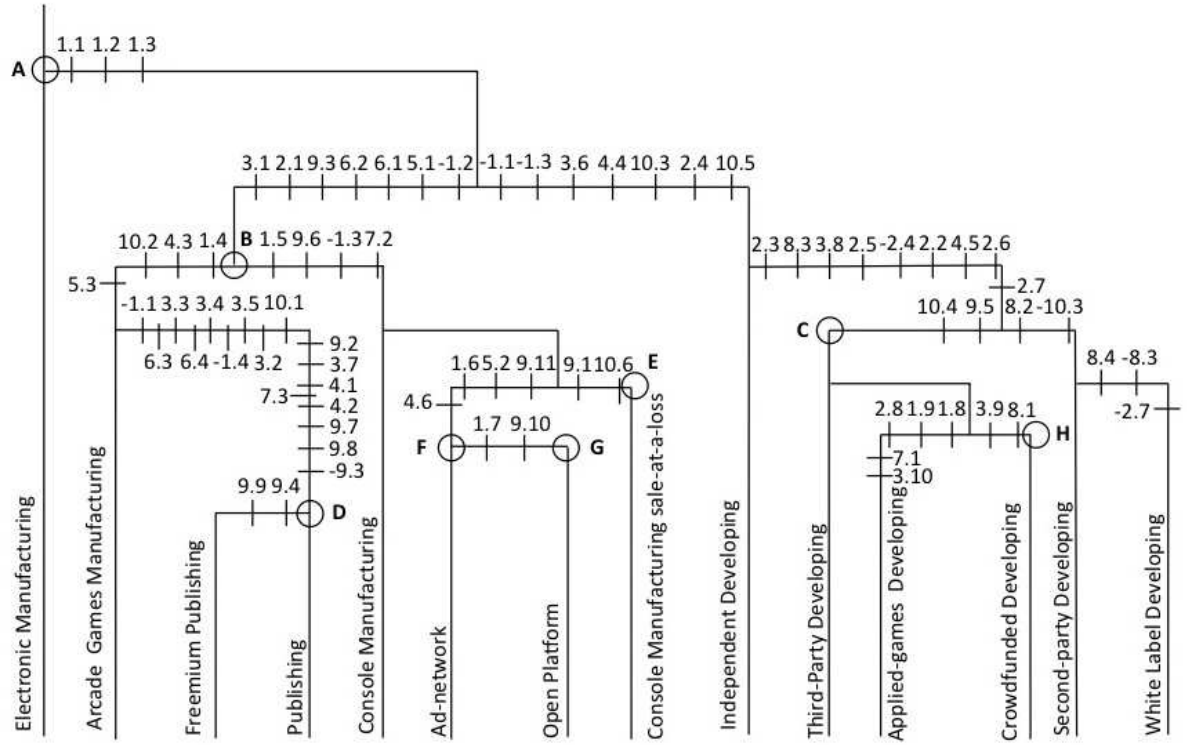


Figure 1. The Cladogram of the global video-games industry BMAs. Each number corresponds to a particular characteristic. Characteristics are coded according to the BM Component that they are part of as in Table 2. A negative number corresponds to the loss of a character.

However, HEA entails a particular challenge that relates to the development of a repository system that would be able to perform in our case three main functions: store the industrial BM characteristics, establish the relationship among the units of analysis, and code the information to facilitate information retrieval at any point. In other words, a formal BM Classification System is required that would reflect the industrial evolutionary trajectory.

The development of a classification system that functions as the information storage and retrieval tool for the benchmarking purposes is really important. For that purpose, we employed a classification system that belongs to the biological school of systematics, namely Cladistics classification. Cladistics classification is an empirically driven taxonomy that groups entities together based on how recently they share a common ancestor (De Queiroz and Gauthier 1992). The output of Cladistics classification, namely the Cladogram, is a hierarchical classification schema which provides information on the characteristics of the entities, the inheritance, and relationship (Figure 1). However, the entities' characteristics (or characters) may suggest multiple, mutually conflicting cladograms. Based on the rule of parsimony, which assumes that evolution always follows the shortest path, the most parsimonious tree (the tree with the least character changes between entities) is

chosen. This poses a very important implication considering BM change because it can help reveal the path of least resistance for strategic benchmarking.

| List of Classification Characteristics (Business Model Canvas) | | | |
|---|---|---|---|
| **1 Value Proposition** | | **6 Channels** | |
| 1.1 | Platform manufacturing | 6.1 | In-house physical distribution |
| 1.2 | Video games development | 6.2 | 3rd –Party physical distribution |
| 1.3 | Video-games publishing | 6.3 | In-house digital distribution |
| 1.4 | Arcade-games manufacturing | 6.4 | 3rd - Party digital distribution |
| 1.5 | Console manufacturing | | |
| 1.6 | Servers as platforms | | |
| 1.7 | Video game streaming | | |
| 1.8 | Applied games development | | |
| 1.9 | Gamified applications | | |
| **2 Key Resources** | | **7 Customer Segments** | |
| 2.1 | In-house development | 7.1 | Business to Business (B2B) |
| 2.2 | Complementary assets | 7.2 | Publishers / Developers |
| 2.3 | Multidisciplinary development team | 7.3 | Advertisers |
| 2.4 | Small development team | | |
| 2.5 | Big production studios | | |
| 2.6 | Middleware development and support | | |
| 2.7 | Internally funded development | | |
| 2.8 | Reusable and interoperable products | | |
| **3 Key Activities** | | **8 Customer Relations** | |
| 3.1 | In-house physical distribution | 8.1 | Co-creation and development |
| 3.2 | In-house digital distribution | 8.2 | Exclusive publishing agreements |
| 3.3 | Product / Service localisation | 8.3 | Multiple publishing agreements |
| 3.4 | Layout design and printing | 8.4 | Complete publishing dependence |
| 3.5 | IP acquisition | | |
| 3.6 | IP creation | | |
| 3.7 | In-game advertising | | |
| 3.8 | Open source software development | | |
| 3.9 | Crowdfunding | | |
| 3.10 | Project-based production process | | |
| **4 Key Partners** | | **9 Revenue Model** | |
| 4.1 | 3rd – Party physical distributors | 9.1 | “Razor-blade” model |
| 4.2 | 3rd – Party digital distributors | 9.2 | Direct sales (software) |
| 4.3 | 3rd – Party developers (outsourcing) | 9.3 | Direct sales (platform) |
| 4.4 | 3rd – Party publishers (outsourcing) | 9.4 | Micro transactions |
| 4.5 | 3rd – Party publishers (funding) | 9.5 | Royalties receivables (IP licenses) |
| 4.6 | On-line hosts | 9.6 | Royalties receivables (platform license) |
| | | 9.7 | Royalties receivables (ads) |
| | | 9.8 | Subscriptions |
| | | 9.9 | Freemium revenue model |
| | | 9.10 | Servitisation |
| **5 Cost Structure** | | **10 Strategy** | |
| 5.1 | Marketing | 10.1 | Production risk minimisation |
| 5.2 | Royalties payables (hosts) | 10.2 | Hit-driven strategy |
| 5.3 | Royalties payables (IP license) | 10.3 | Creative independence |
| | | 10.4 | Exit strategy |
| | | 10.5 | Cost minimisation |
| | | 10.6 | Two-sided strategy |

Table 2. The list of the classification characters that are depicted on the Cladogram of Figure 1 and their corresponding code. The code’s first digit corresponds to a particular component of the BM canvas for convenience.

In our case we employ the global video-game industry, BM archetype (BMA) classification Cladogram that was developed in Goumagias et al. (2014) which is shown in Figure 1. The output has been enriched using anecdotal evidence, producing a set of 13 BMAs that range from video-games publishing, development and console manufacturing. The construction methodology of the cladogram goes beyond the scope of this paper. However, for comprehension reasons we include a short discussion on the cladogram and how it can be used to facilitate discussion.

According to Goumagias et al. (2014), BMAs are elementary BMs, similar to Type I of Chesbrough's (2007) typology. The BMA's dimensions revolve around a value proposition of a certain link of the industrial value chain. This facilitates our analysis because it provides a more descriptive instance of the BM literature via the addition of an extra layer to (Massa and Tucci 2013) pyramid of BM architecture. Consequently, the BMAs can act both as an independent BM (Type I), or a component of a diversified BM (Type IV- Chesbrough 2007). The complete list of characteristics and their corresponding codes is provided in Table 1.

### 3.2 Benchmarking

Having explored, codified and stored the historical knowledge about BM evolution of the video game industry, it is possible to directly compare any company's BM against the map of the industrial BM ecosystem by decomposing its BM to its corresponding BMAs. This can be achieved by exploring which of the characters of Table 1 belong to the company's BM.

| BM Archetype | Characteristics |
|---|---|
| **Sales and Marketing Family** | |
| Arcade Games Manufacturing | 1.1 1.3 5.1 6.1 6.2 9.3 2.1 3.1 1.4 4.3 10.2 5.3 |
| Publishing | 1.3 5.1 6.1 6.2 2.1 3.1 4.3 10.2 5.3 3.2 3.3 3.4 3.5 3.7 6.3 6.4 4.1 4.2 7.3 9.2 9.7 9.8 10.1 |
| Freemium Publishing | 1.3 5.1 6.1 6.2 2.1 3.1 4.3 10.2 5.3 3.2 3.3 3.4 3.5 3.7 6.3 6.4 4.1 4.2 7.3 9.2 9.7 9.8 10.1 9.9 9.4 |
| **Platform Manufacturing Family** | |
| Ad-Network | 1.1 5.1 6.1 6.2 9.3 2.1 3.1 1.4 4.3 10.2 5.3 1.5 9.6 7.2 9.11 5.2 1.6 4.6 |
| Open Platform | 1.1 5.1 6.1 6.2 9.3 2.1 3.1 1.4 4.3 10.2 5.3 1.5 9.6 7.2 9.11 5.2 1.6 4.6 1.7 9.10 |
| Console Manufacturing | 1.1 5.1 6.1 6.2 9.3 2.1 3.1 1.4 4.3 10.2 5.3 1.5 9.6 7.2 9.1 10.6 |
| **Development** | |
| Independent Development | 1.2 3.6 4.4 10.3 2.4 10.5 |
| Third-party Development | 1.2 3.6 4.4 10.3 10.5 2.3 8.3 3.8 2.5 2.2 4.5 2.6 2.7 9.5 10.4 |
| Applied Games Development | 1.2 3.6 4.4 10.3 10.5 2.3 8.3 3.8 2.5 2.2 4.5 2.6 2.7 9.5 10.4 1.8 1.9 2.8 7.1 3.10 |
| Crowdfunded Development | 1.2 3.6 4.4 10.3 10.5 2.3 8.3 3.8 2.5 2.2 4.5 2.6 2.7 9.5 10.4 3.9 8.1 |
| Second Party Development | 1.2 3.6 4.4 10.5 2.3 8.3 3.8 2.5 2.2 4.5 2.6 2.7 8.2 8.4 |
| White Label Development | 1.2 3.6 4.4 10.5 2.3 3.8 2.5 2.2 4.5 2.6 8.2 8.4 |

Table 3. This table shows all BMAs and their corresponding characteristics. Knowing which characteristics is part of the company's BM, and the corresponding BMAs.

Table 3 summarises the BMAs' characteristics of Figure 1, and allows us to compare them directly by identifying: i) which characters are required to acquire a particular BMA, ii) which characters are required to acquired or dropped to move from an archetype to another, iii) which is the path of least resistance based on the total number of character changes are required, given the company's strategy. We demonstrate the Framework functionality via a case study which is presented in the next subsection.

### 3.3 Case Study: Hyde LtD

White label development, or ghost development, or secret team, are terms that are used to characterise a particular type of contracting within the broader sector of creative industries, particularly those in the IT and video-games development. White label developers undertake contracts in order to perform the development and production of several aspects of a particular project. Within the domain of video games development, this usually entails the development of certain visual or audio related aspects. However, a particular characteristic of the white label development is that the studio is not usually credited. This happens because the video games, as IPs, rely heavily on the perception of their loyal customer base. As a result, the publisher, and main developer, of the game is reluctant to disclose this information to avoid potential negative reaction on behalf of the game's player base (Leone 2015).

One such example is Hyde. Hyde was founded in 2002. The company was actively involved in the development of more than 200 projects, among which titles that are particularly popular, such as Final Fantasy ($114mn global sales in 2014, - Euromonitor 2016). However, under contract terms, Hyde is not credited, and is under a non-disclosure agreement that does not allow anyone from the company to reveal any kind of information related to the project. In 2015, Hyde decided to partner with Comcept to develop a new game, namely Red Ash. . Comcept on the other hand, is not a video game development studio, but a company that provides concept art and design services. To attract funding, they opt for crowdfunding their campaign (Leone 2015).

| **BM Archetype** | **Characteristics** |
|---|---|
| **Sales and Marketing Family** | |
| Arcade Games Manufacturing | 1.1 1.3 5.1 6.1 6.2 9.3 2.1 3.1 1.4 4.3 10.2 5.3 |
| Publishing | 1.3 5.1 6.1 6.2 2.1 3.1 4.3 10.2 5.3 3.2 3.3 3.4 3.5 3.7 6.3 6.4 4.1 4.2 7.3 9.2 9.7 9.8 10.1 |
| Freemium Publishing | 1.3 5.1 6.1 6.2 2.1 3.1 4.3 10.2 5.3 3.2 3.3 3.4 3.5 3.7 6.3 6.4 4.1 4.2 7.3 9.2 9.7 9.8 10.1 9.9 9.4 |
| **Platform Manufacturing Family** | |
| Ad-Network | 1.1 5.1 6.1 6.2 9.3 2.1 3.1 1.4 4.3 10.2 5.3 1.5 9.6 7.2 9.11 5.2 1.6 4.6 |
| Open Platform | 1.1 5.1 6.1 6.2 9.3 2.1 3.1 1.4 4.3 10.2 5.3 1.5 9.6 7.2 9.11 5.2 1.6 4.6 1.7 9.10 |
| Console Manufacturing | 1.1 5.1 6.1 6.2 9.3 2.1 3.1 1.4 4.3 10.2 5.3 1.5 9.6 7.2 9.1 10.6 |
| **Development** | |
| Independent Development | 1.2 3.6 4.4 10.3 2.4 10.5 |
| Third-party Development | 1.2 3.6 4.4 ***10.3*** 10.5 2.3 8.3 3.8 2.5 2.2 4.5 2.6 2.7 ***9.5*** 10.4 |
| Applied Games Development | 1.2 3.6 4.4 10.3 10.5 2.3 8.3 3.8 2.5 2.2 4.5 2.6 2.7 9.5 10.4 1.8 1.9 2.8 7.1 3.10 |
| ***Crowdfunded Development*** | 1.2 3.6 4.4 ***10.3*** 10.5 2.3 8.3 3.8 2.5 2.2 4.5 2.6 2.7 ***9.5*** 10.4 ***3.9 8.1*** |
| **Second Party Development** | **1.2 3.6 4.4 10.5 2.3 8.3 3.8 2.5 2.2 4.5 2.6 2.7 8.2 8.4** |
| **White Label Development** | **1.2 3.6 4.4 10.5 2.3 3.8 2.5 2.2 4.5 2.6 8.2 8.4** |

Table 4. Hyde's BM consists of white label development and second party development. Characters that belong to Hyde's BM are bold. Characters to be acquired for Third-party development are bold, italics.

However, according to Leone (2015), and Comcept's Assistant Producer Josh Weatherford, there was a Tumblr (a microblogging and social networking platform) post[1] that tried to raise public awareness about the project, emphasizing on the fact the Comcept is not a development studio and highlighting the fact that Hyde, the actual developer, has no track record on the development action video games. Action video games are very demanding in terms of budgeting and marketing (AAA, - triple A games) which require substantial sales to break even. Of course this claim was far from true. However, Hyde was not allowed to retaliate and reveal the company's expertise in developing action games. Consequently, the crowdfunded campaign failed to hit the target of $700,000. Instead, it raised as much as $500,000 in pledges.

In retrospect, it is interesting to explore, within the context of our suggested framework, how Comcast and Hyde could avoid the risk of a failed crowdfunded campaign, and instead identify another strategic trajectory. The first step of our analysis is to identify Hyde's BM. That would equivalent to a combination of "Second Party Development" and "White Label Development" (Leone 2015). Given that Hyde aimed to develop its own IP, the company tried to transition to Third-party development via crowdfunding (Figure 1).

Table 4 shows (bold, and underscored) Hyde's BM, which is a portfolio of two archetypes: White label development, and second party development. Second party development is the evolutionary

[1] http://thefeelofavideogame.tumblr.com/post/123236592604/have-caution-regarding-red-ash

ancestor of white label development, which evolved by strengthening the relationship between the development studio and its partners, usually other development studios or publishers (character 8.4: complete publishing dependence). Hyde's strategic position in terms of BM composition, allows us to directly compare them against all other archetypes by directly identifying the distance between archetypes in terms of the numbers of characteristics requires.

It is evident from table 4, that in order to transition from white label developing to third-party development via crowdfunding, Hyde had to acquire 4 characteristics: Hyde had to engage in co-creation and co-development activities (8.1) in order to attract pledges (3.9). Having achieved the capability of creating its own IP, then Hyde would be able to acquire a new revenue stream (via licensing, 9.5) and as a result enjoy creative independence (10.3). However, there is another path that seems to be less risky, albeit more time consuming than crowdfunding. As mentioned before, white label's ancestor is second party development. Hyde could work towards changing and reversing the 30-70 ratio of non-disclosure agreements, and work towards projects that would credit the company's contribution to the project, emphasizing more on the second-party development archetype of Hyde's BM, and then transitioning towards a third party development. Our suggested strategic roadmap is consistent with the current literature that revolves around crowdfunding and places it at the centre of marketing strategy rather than resource acquiring activity (Mollick 2014).

## 4 Concluding Remarks

BM have emerged in academic literature as a unit of analysis for academics and a powerful tool for professionals that enables them to describe and communicate aspects of their business to a broader audience of stakeholders. However, BMs can be the locus of competitive advantage for companies. Due to environmental shifts, internal and external changes, competitive advantage is under constant flux. Particularly in technologically intensive, and volatile industries such as IT, biopharmaceuticals, and creative industries, managers, and entrepreneurs require a map to navigate through different strategic trajectories and make informed decisions that minimise potential risks. The development of toolkits based on theoretical and empirical advances are of great importance towards this direction.

In this paper, building upon historical knowledge of the video game industry and the property of BMs to act both as role models and recipes, we developed a toolkit that aims to help managers and entrepreneurs of the industry to make informed decisions in terms of strategic choices. The framework performs two major functions: i) describes and analyses the company's BM in terms of BM archetypes, and positions it accordingly on the constellation of BM archetypes of the industrial BMs, and ii) benchmarks it against them allowing the company to explore alternative paths to growth. We demonstrate the framework's functionality via a case study, using secondary data, to explore potential alternatives. Our results are compatible with academic literature on crowdfunding as a facilitator of marketing activities.

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