Steam

The Online Digital Distribution Platform

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6/25/13
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1. Executive Summary

This report serves to analyse and discuss how PC video game developer, Valve Corporation, transformed itself into a digital distribution company through the implementation of its digital distribution system, Steam.

The report will also analyse the value chain of the PC video game industry and identify the key drivers behind the development and subsequent success of the Steam platform.

Finally, the strategic advantages and disadvantages of the Steam platform will be discussed and recommendations will be given to tackle these disadvantages.

2. What is the Valve Corporation?

Before the implementation of the Steam platform, Valve Corporation was just a video game developer. It was founded in 1996 by Gabe Newall and Mike Harrington, who were former Microsoft employees. After acquiring the licensing rights of the Quake game engine that was used by another game developer id Software, they begun developing their own games based on that engine.

Valve Corporation achieved a breakthrough in 1998 when it released its action-shooter game title *Half-Life*. The game was widely praised by game reviewers such as PC Gamer, CNET Game Center and received over 50 awards for being the “PC Game of the Year”\(^1\). The game was released in a retail box format through publisher, Sierra-Online\(^2\). The game is considered one of the best-selling titles of all time, with total sales of 9.3 million copies as of 2008\(^3\).

3. What is the Steam platform?

Steam is a digital distribution system designed for the PC. Through the use of the online store on Steam, customers can directly purchase and download videogames from the platform directly onto their computers. As the purchases are tied to a customer’s account,

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customers are able to download their games on multiple PC’s that have installed the platform.

The platform not only facilitates multiplayer gameplay functions but sports features that encourage community building as well. Aside from allowing customers to purchase games as a gift to their friends or trade in-game items with one another, Steam’s other features include friend lists and groups, in-game voice chat and instant messaging functionality. Independent game developers are also able to release their games and content through the online marketplace.

4. The value chain of the offline PC video gaming industry

The value chain of the offline video gaming industry begins with the developer, who designs and develops the game engine, art, audio and gameplay mechanics of the product. The time process can vary, ranging from one to two years. As these small developments teams often have little capital, they would have to approach a publisher for funding. In most cases, the publisher advances development costs at various predetermined stages of the development cycle.

After the game has been developed, the developer hands the game over to the publisher, who takes charge of the manufacturing, marketing and distribution of the game. Items to be assembled are the retail box, game manuals and format that the game comes in: such as floppy disks/CD-roms/DVDs. The marketing of the product and usually revolves around develops a marketing campaign that consists of print ads, commercials and catalogues to promote the game.

Finally, the distribution of the game involves the publisher selling units to wholesalers and retailers. While it has been estimated that wholesalers pay $30 for every game, the publisher receives $16 due to transportation, co-op advertising and marketing and return of good contingency costs. Overall, it is estimated that retailers take 30% of the

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retail price, 10% to distributors with the remaining 60% shared between developer and publisher, of which the publisher takes a bigger cut.8

Finally, the game is placed on shelves by retail stores, awaiting purchase from customers. After purchasing and installing the game, the customer is able to receive a gaming experience.

5. The main form of game distribution before Steam
While digital distribution of games existed before the advent of Steam, there were technological limitations that prevented it from gaining ground. In the early 1990s, games such as Wolfenstein 3D and Doom were offered as shareware to consumers via downloads.

As consumers only had access to the internet through a 56k dialup connection, the size of the shareware version of the game had to be small due to slow download speeds. Thus, the shareware version offered only a limited experience of the full game. Game publishers had hoped that the shareware version would entice consumers to purchase the full game. Due to such limitations, the majority of games were sold mostly through retail stores in formats such as floppy disks or CD-roms.

6. Challenges from the traditional value chain
Although the offline value chain of the video gaming industry is seemingly simple, there has been numerous challenges faced by the developers, publishers and consumers.

a) Challenges for Developers
For independent game developers, finding a publisher is a difficult task. While some developers may have the funds to develop their own games, they do not have the amount of capital required to produce and market the product. As such, they require a publisher to push out their product to retail stores.

However, as the costs of producing, marketing and distributing a game are high, publishers are highly inclined to only select developers that they feel will bring a return on their investment. As such, only a limited number of developers are able to receive funding.

and support for their games, with the rest unable to take their game concepts to the market\textsuperscript{10}.

Another concern that developers have is the limited control they have over their products once they hand it over to their publishers. Aside from the ceding of control of distribution rights to the publishers, some developers face conflicts over the issue of the ownership of intellectual rights to their game as well.

In 2002, Valve Corporation sued Sierra-Online over what it deemed as a copyright infringement of its products. In its filing, Valve accused its publisher of distributing its products to cyber-cafes, something what was deemed out of the scope of Sierra’s limited licence. In response, Sierra countersued Valve stating that their previous agreement was misrepresented by Valve and demanded ownership of the Half-Life intellectual property\textsuperscript{11}.

Finally, developers usually receive only a small cut of the total profits derived from the sale of the game through the royalty system. While the percentage may differ depending on the terms and conditions of the agreement, such as achievement of certain sales goal or milestones, it is estimated that the royalty is within the range of 10\%-20\%\textsuperscript{12}.

\textbf{b) Challenges for Publishers}

The main challenge for publishers is to correctly select a game to fund or develop and then recoup their investment from the developmental costs of the game and turn a profit.

The financial stakes for publishers are high, with analysts estimating that the average developmental costs of a top-selling game (referred to as an AAA title) may cost up to $28 million or more. While Call of Duty, an action-shooter franchise by publisher Activision, has sold over 55 million copies worldwide bringing in revenues of $3 billion, the cost to develop it was $550 million\textsuperscript{13}.

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The costs of developing a game has increased dramatically over the past ten years, as previous budgets were usually around the range of $5-10 million\(^{14}\). Of the total budget, marketing and manufacturing costs take up a huge chunk, with the costs often being equal or double of the actual cost of developing the game\(^{15}\). Should the publisher have an in-house distribution team, the company will also have to bear the logistical costs borne from holding inventory and the shipping of the finished product to wholesalers and retailers.

Lastly, the other challenge that publishers face is the amount of pressure that they face from retailers. As shelf space is highly valued, publishers have to ensure that they maintain good relationships with the wholesalers and retailers in order to achieve better sales and shelf space in retail stores\(^{16}\).

c) Challenges for Consumers

With the offline distribution model, consumers often had to make trips to their nearest retail store to purchase the game. Furthermore, installation of the game required a physical copy of the game disk (CD-rom, DVD, etc). In order to prevent piracy or unauthorized distribution of the game, publishers installed software such as SecuROM that made it difficult to duplicate the game disk while making it mandatory to have a physical copy of it in order to run the game\(^{17}\).

These factors cause inconvenience to customers as 1) additional costs are required for making the trip to the store and 2) for maintaining the integrity of the game disk. Also, while there were applications that allowed customers to bypass the requirement of having of disk to play, these “hacks” were often considered to be illegal by publishers\(^{18}\).

7. The development of Steam

With the success of Half-Life, modifications (mods) to the game sprung up. These modifications changed the gameplay mechanics of the game whilst introducing new themes.


While Half-Life main draw was its single-player campaign, multiplayer mods which pitted players against players such as Team Fortress and Counterstrike, which were launched in 1999 and 2000 respectively, begun to become popular. At its peak, players on Counterstrike servers were estimated to number between 70,000 to 80,000 players\textsuperscript{19}.

However, the company faced a problem. Fixes for bugs in the game, called patches, were being constantly released for the game. As there was no auto-updating feature in the, players had to manually access a website to download the patches and install it. Players who did not update their game clients were unable to connect to game servers. This process proved to be highly disruptive and reduced the game time and gaming experience that players had\textsuperscript{20}.

Gabe Newall decided that he wanted “a way to sell games, provide support, communicate with customers and get a better handle on what people were doing with our products in a way that would allow us to make better games”\textsuperscript{21}.

Although Valve approached Yahoo, Microsoft and Real Network to build such a system, they were turned down\textsuperscript{22}. As such, they began to develop the systems by themselves. Whilst designing the system, the team at Valve decided to focus on features such as auto-updating, better anti-piracy and the ability to sell games over the internet\textsuperscript{23}.

\section*{8. The launch of Steam}
In 2002, Steam was launched by Valve. The auto-updating platform allowed players to download Valve games that they had purchased before as well as game modifications. Valve also used the platform to beta test the new version of the modification Counterstrike 1.6, which gathered 80,000 players\textsuperscript{24}.

While Steam attracted many players, networks problems were an issue as there was not enough bandwidth to support such a huge number of users. Servers were overloaded and players were unable to download patches required for their games\textsuperscript{25}.

\section*{9. Half-Life 2 and a new distributor}

In 2004, Valve released the highly anticipated sequel to its action-shooter game, *Half-Life 2*. Despite an ongoing legal suit since 2002, the game was distributed through both Vivendi Universal Games (now parent company of Sierra-Online) and its Steam platform.

In 2005, Valve won a legal victory when it was decided that Vivendi would have to cease distribution of their retail versions of *Half-Life 2*, give up claims of ownership of the Half-Life intellectual property and revoke and transfer any licensing deal it had struck with any cyber cafes to Valve\textsuperscript{26}.

However, instead of purely relying on its digital distribution platform, Valve decided to continue to use a publisher, and selected Electronic Arts to distribute its boxed retail versions of the game. However, unlike the previous arrangement with Vivendi, Valve would retain creative control of its franchise while Electronic Arts only would be managing the marketing and distribution of the retail version of its games\textsuperscript{27}.

\section*{10. Steam gains ground with 3\textsuperscript{rd} party developers and publishers}

After their legal win over Vivendi, Valve was negotiating with 3\textsuperscript{rd} party developers to release their games on the Steam platform. Within the same year, indie titles such as *Rag Doll Kung Fu* and *Darwinia* appeared on Steam, with other more well-known developers such as Ritual Entertainment committing to release its sequel to its hit game, *SiN*, via the platform\textsuperscript{28}.

In 2007, major publishers such as id Software, Capcom and Eidos decided to being publishing their titles on Steam. This brought franchises such as Quake, Doom, *Devil May

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In that same year alone, Steam had 13 million active accounts and offered 150 games to customers. Also, the platform was able to facilitate 7 billion player minutes per month and served consumers over 2,500 game updates.

In the following year, Steam attracted another two major publishers, its own distributor Electronic Arts and Activision. The additional of these two publishers brought millions of users to the platform through hit franchises such as Battlefield, Command & Conquer, Crysis and Call of Duty.

11. The user figures and financials of Steam

As of 2012, Steam has 1,800 game titles and 50 million users, with a peak user figure of 6 million on in November 2012 as compared to the peak user figure of 4 million in September 2011.

Whilst originally designed for the Windows operating system, Valve launched the Steam platform for Mac users in 2010 and Linux users in 2013. However, the majority of users remain Windows users, with them accounting for 94.11% of all users followed by Mac and Linux users, whom account for 3.07% and 2.02% of all users respectively.

According to research, in June 2011 58% of all PC game sales were made through digital distribution, with Steam accounting for 51% market share. The closest competitors to Steam are Amazon and GameStop, which hold 11% and 10% of the digital distribution market respectively. While Valve Corporation continues to remain

as a private company, analysts believe that the revenues for Valve in 2010 were around $600-800 million, with $87.5 million in net profit. 

12. Strategic considerations (Benefits)
   a) Benefits for Valve

   The original purpose of Steam was to provide Valve a platform to automatically deliver game updates to its customers and to build a closer relationship with them. While the platform has achieved its original purposes, there have been other benefits for Valve as well.

   Steam has created a huge gaming community, with 50 million users and over 155 million contributions from users. Contributions include news of game releases, screenshots of in-game achievements, fan artwork of games, user-written game guides, videos and downloadable user content for in-game use. Players are also able to compare in-game achievements and trophies with one another through the Friend list system. As this vibrant community continuously generates interest in Steam and its products, Valve does not have to spend much on advertising costs.

   Through the partnerships Valve has with other publishers, big game franchises published on Steam has brought significant revenues to Valve. As mentioned earlier, the estimated revenues of Steam were $1 billion. With Valve reportedly taking a 30%-40% cut from every sale of games sold by other publishers, the revenue Steam gains from transaction fees alone are approximately $300 to $400 million. Without even being involved in the expensive development process, Valve is still able to receive a significant cut of each transaction. This is highly beneficial to Valve as the only cost incurred is from hosting the content on the platform, which would be considerably low.

   Steam also earns revenue through its in-game trading system featured in its Team Fortress 2 game. The “Community Market” function in Steam allows players to

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sell in-game items to one another. With each transaction, Valve and the publisher of the game receives a certain cut of the trade\textsuperscript{39}. Items can only be traded using the “Steam Wallet”, with real money being used to purchase credits for a user’s Steam wallet\textsuperscript{40}. Even if the trade is between two private individuals, the company is able to receive revenues through this model.

The ability of users to download games right after they launch allows Valve to combat piracy. In most cases, piracy is caused due to the differences in release timing across regions and the unavailability of ready stocks at retailers\textsuperscript{41}. However, with digital distribution, simultaneous worldwide release of games are easier to implement now due to the removal of logistical constraints. This provides the user an incentive to purchase the game rather than pirate it.

Also, the encryption that Steam provides has proven to be effective in deterring hackers. While most games released in 2004 were pirated immediately after launch, \textit{Half-Life 2}, which was the only game title encrypted through Steam was not\textsuperscript{42}.

Lastly, by tying each game purchase to a single Steam account, customers are unable to use other platforms to access their games and as such, have greater incentive to use that very same Steam account to purchase another game in order to build up their collection of games.

\textbf{b) Benefits for developers}

Firstly, the introduction of Steam has allowed PC game developers to bypass the traditional middleman, the publisher. As such, independent developers are able to reach consumers directly, without having to spend a significant amount of time in finding a publisher.

Also, they are able to retain control of their intellectual property and receive more profits from the sale of their products. According to analysts, developers that publish that products on Steam receive 70% of revenues whereas in the traditional model, they would only receive 30% or less of revenues\(^{43}\).

The huge user base of Steam also grants independent developers access to a large number of potential customers. Developers are able to open up their games for beta-testing on Steam, allowing them to perform analytics, identify bugs and gain invaluable feedback from its audiences\(^{44}\). By leveraging on these development tools that are provided by Steam, developers can create better games that are in tune with what their customers want. Customers that enjoy the early build of the game are early to pre-order it, giving developers a way to lock in customers before launch date.

Lastly, thanks to the encryption and anti-cheating software present in Steam, developers are able to release their games on Steam without having to develop the software on their own or worry about piracy, thus being able to save on development costs\(^{45}\).

By providing developers a wide range of development and publishing tools, Steam presents itself as not just a mere online publisher but also as a friendly and supportive partner that is interested in the success of their games.

c) Benefits to the consumer

By using a Steam client, consumers are able to purchase games directly from the internet, thus saving them a trip to the retail store. Also, even though a game may not have been officially released yet, consumers can still pre-purchase and pre-load (download) the game into their computers. These factors grant convenience to the platform’s users, allowing them to save time.

Due to its digital nature, customers no longer require a physical game disk, and can install their games on any computer that they want. Furthermore, the Steam platform also


facilitates a smooth installation of any purchased games as the whole process is contained within the Steam application itself.

Through its partnerships with the many independent developers and publishers, the Steam platform offers consumers a wide variety of choice. Also, the anti-cheat software allows for fair gameplay, allowing consumers to enjoy their gaming experience with other online players. With over 50 million users, Steam serves not just as a gaming platform but also as a communicative tool that provides opportunities with its consumers to socially interact with one another through the use of the forums, shared content, instant messaging and voice chat.

13. Strategic Considerations (Disadvantages)
a) Easily replicated business model

While Steam has been the market leader in PC video gaming digital distribution, other rivals are keen on catching up. The digital distribution model that Steam once pioneered has been replicated by other players.

In June 2011, Electronic Arts introduced their own platform, Origin, and removed their popular game titles from the Steam platform, and instead published it exclusively on their own[^46]. The Origin platform works similarly to Steam, allowing users to download games directly from a server onto their own PCs. It is worthy to note that the Origin platform also has a Mac client available for users to download[^47].

As of October 2012, users of the Origin platform numbered at 30 million[^48]. While the amount of Origin users still number less than the 50 million users that Steam has, it is worthy to note that Origin was able to achieve this amount of users within 1 year and 4 months of its launch. It is highly likely that Electronic Arts was able to achieve this huge growth due to its portfolio of popular franchises.

Furthermore, companies that have are not part of the gaming industry has joined the fray as well, with online companies such as Direct2Drive and Amazon and traditional brick

and mortar stores such as BestBuy also having set up their own online video game distribution service.

b) Dominance of other titles from other publishers

In 2010, the top ten selling titles in terms of units sold on Steam brought revenues of $294 million. Of the ten titles, only two (Left 4 Dead 2 and Portal) were developed by Valve which brought revenues of $56 million. Titles from publisher Activision brought revenues of $137.6 with its Call of Duty franchise\(^{49}\). Other publishers include 2K, Electronic Arts and Bethesda Softworks.

When Electronics Arts removed their titles from the Steam platform in June 2011, Steam lost the popular Battlefield, Need for Speed and Crysis franchise in its offerings\(^{50}\).

One of the biggest threats that Valve may face is the possibility of other major publisher leaving Steam to set up their own distribution platform, thus reducing the amount of popular game titles in its offerings. If 1) Valve does not develop its own games and 2) Should another major publisher such as Activision leave, it is highly Steam will stand to lose a significant part of revenue.

14. Recommendations

a) Developing new games

The Half-Life franchise of Valve have a track record of being well received by consumers, with total sales of all 10 games (with mods included) totalling at 32.8 million units\(^{51}\). As such, Valve should return to one of their key competencies, game development, and produce games that will attract and increase their customer base as well as revenues.

As stated above, the amount of revenues gained from the sale of games developed by Valve only form a minority of revenue from total game sales on Steam. By developing new games, Valve can hedge also against the possibility of publishers removing titles from the Steam store.

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b) Exploring the Freemium model

While Valve has only one title, *Team Fortress 2*, running on the freemium model, the company should look into the possibilities of converting more games into it. Other titles, such as *Counterstrike* which have a huge customer base may prove to be suitable candidates as well.

Valve can also look towards partnering with other developers of publishers to convert currently popular titles into freemium titles. Steam’s large user base should be capitalized upon by Valve to make extra revenue for the company as the amount of in-game transactions could be significant due to the high volume of players.

c) Customer Loyalty Programmes

One of the main reasons why major publishers publish through Steam is due to the huge customer base that the platform has. As such, it is in the interest of Steam to continue to maintain or even boost the loyalty of its current customer base.

One possible way to achieve this is to implement a reward system for every game purchased from Steam. In this system, every purchase made will grant a customer a certain amount of points which can be used to reduce the price of future purchases.

If given a choice between purchasing the same title on Steam or on another platform, it is highly likely that gamers with points will choose to purchase games on the Steam system.

d) Acquisition of popular franchises

The final recommendation for Valve to increase its market share is to acquire popular franchises from other publishers. The acquisition strategy has been used by rival Electronic Arts when it purchased DICE, the developer of the *Battlefield* series in 2006 for $23.9 million.

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The strategy has paid off for Electronic Arts, as the latest iteration of the series, *Battlefield 3*, sold 5 million copies worldwide in its first week of release, bringing revenues of $300 to Electronic Arts.\(^{53}\)

While it is highly unlikely that rival publishers will sell their best-selling franchises to Steam, the company could attempt to purchase a once-popular franchise, revive it and turn it around.

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