How Do Different DLC Delivery Methods Impact Appeal and Effectiveness

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Abstract

Downloadable content (DLC) distribution models employ various methods to keep consumers interested. Some methods encourage consumers to purchase and engage with a DLC model and some methods discourage consumers from engaging with the model. This study seeks to determine which models keep consumers interested and which discourage consumers from purchasing DLC. We do this by reaching out to multiplayer communities of four different games that are affected by different models and have them fill out a survey regarding their purchasing behaviour. After analysing the results, we concluded that models that require players to own the same DLC in order to play together or that utilize watermarks for DLC that are not owned, are less effective at incentivizing players to purchase when compared to models that either allow players to share DLC, or acquire it through in-game means.

Key words: Computer games, DLC, Business, Marketing, Downloadable content, Engagement
Abstrakt


Nyckelord: Datorspel, DLC, Företag, Marknadsföring, Nedladdningsbart innehåll, Förlovning
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1 Introduction

The expectation of a game purchase used to involve only the content that is on the disk at the date the game is released. As Jeffrey Cook of *The Artifice* says, back in the 1990’s people played their video games predominantly on consoles of the time such as Super Nintendo and PlayStation (Cook, 2016). These game consoles did not have Internet connections, therefore the games consumers bought remained in the state they were released in, meaning their initial version would last for each particular game’s lifespan. A direct contrast to the almost weekly updates some games get in today’s industry (Cook, 2016). As Cook says, not only did console games in the 1990’s receive no patches, the content remained unchanged as well. What you bought was the final product. (Cook, 2016) After that any additional content for the game would come in the form of more disks known as expansions. “Expansion pack is an additional content to the game that brings major changes, often changes to the core gameplay mechanics, systems, new in-game items.” (Kononov, 2015). Expansions were a content update for the game that would generally need to have enough content to convince consumers to make an additional purchase, “…it took the arduous act of actually taking a trip to a computer store to get additional content, … expansion packs for video games needed to have sufficient content to warrant a purchase”. (Cook 2016)

As internet speeds increased, became more readily available and digital distribution models were more common, a shift in the business models for games occurred with Steam® at its forefront. “With the advance development of network bandwidth capabilities, digital distribution has obtained a significant market share in video game industry in the early 2000s” (Osathanunkul, 2015, p. 41) The increased presence of digital methods of distribution and the release of Steam® and its success as a gaming platform has caused manufacturers, developers and publishers to see opportunities to fully distribute their games digitally directly to the consumer through online gaming platforms, this way being able to skip the intermediaries and increase their profits significantly. (Berman-Grutzky and Cederholm, 2015) As a result continued support for games has become more pronounced due to the increased accessibility of downloading and uploading for consumers and developers respectively.

Continued support has manifested in the form of downloadable content or DLC. “DLC refers to additional content that can be downloaded within a video game. It has become a common feature in PC, console, and mobile games.” (TechTerms, 2012). DLC is the additional content purchased through digital means that is tied to a specific game, a game that acts as a platform for said downloadable content. The prevalence of DLC has given rise to multiple business delivery methods in which to deliver said DLC to consumers. “Advances in technology play a large role in this burgeoning commodification trend, as much of the DLC implementation would have been difficult if not impossible just a few years ago.” (Lizardi, 2012: 3) Across these multiple methods, some have managed to keep consumers interested in continued purchase of DLC while others have discouraged or outright repulsed consumers from buying DLC. As a result of some discouraging or repulsive business delivery methods, core gamers no longer see DLC as a way to extend the entertainment that they have purchased, but rather a way for companies to generate increased profits. (Kononov, 2015) Our study investigates the impact of differing DLC delivery methods on appeal and effectiveness.
2 Previous works within the subject area

Toivonen and Sotamaa, in their paper “Digital distribution of games: The players’ perspective” (2010) focus on finding what players know and the experiences they had with digital distribution models. Toivonen and Sotamaa (2010) found various factors that influence how players consider digital distribution and issues players brought up regarding downloadable games. The paper informs on consumer attitudes towards digital distribution as a whole.

Kuikkaniemi et al., in their paper “Ten Questions for Games Businesses: Rethinking Customer Relationships” (2010) bring up questions for how to maintain a game provider and player relationship to gain greater business benefits in a long term customer relationship. This paper helps in understanding what kind of attitudes consumers might have.

Berman-Grutzky and Cederholmin their paper “The obstacles and opportunities for digital distribution in the video game industry” (2010) talk about the rise of digital distribution and as the title mentioned the obstacles it faces and the opportunities that arise with digital distribution.

Sotamaa et al., in their paper “New Paradigms for Digital Games: The Finnish Perspective” (2011) provide an in-depth look of the digital aspect of games. Changes in the business environment such as digital distribution and games as a service are delved into. Also, Sotamaa et al. (2011) provide a case study on the game Skate 3 (2010) and using the case study they analyse how DLC keeps people invested in the game, how DLC affects gaming culture in general, the corporate strategies behind DLC and how players can be further catered to with DLC. We follow a similar structure to this papers case study, the difference being in our focus towards consumer attitudes towards DLC and the methods they are delivered in.

Lizardi’s paper “DLC: Perpetual Commodification of the Video Game” (2012), examines the impact of games in today's society. It then moves onto how DLC affects this role through attracting consumers in a cycle of content delivery. Talking about the development of games and DLC through time, will help us better understand the trends we might see in our information.

Osathanunkul’s paper “A classification of business models in video game industry” (2015) asserts that the current business model for the game industry is vague and ambiguous. This paper will help by going in depth into these market terms and definitions of DLC.

Kononov’s paper “Monetization in games” (2015) addresses monetization of games. This extends to the value of said products and how this affects consumers, by seeking the connections between buyers and purchasing DLC. This paper uses interviews to try and understand if consumers think of DLC as a valid method of providing additional content.

Lee, Jett and Perti, in their paper, “The Problem of “Additional Content” in Video Games” (2015), discuss challenges and propose a solution that can alleviate the problem of managing a digital library collection including video games with additional content. While they discuss digital libraries in the paper, it does contain useful information pertaining to DLCs and definitions.
3 Purpose

The purpose of this study is to understand, through the comparison of consumer attitudes and reasoning behind their attitudes towards different DLC delivery methods, which models keep consumers interested in buying more DLC and which ones would discourage them from making any additional purchases. The main focus of this paper is on the state of DLC delivery methods from a consumer behaviour standpoint. Much of the previous work on this subject focuses mainly on the rise of digital distribution models and to a lesser extent the rise of downloadable content that arrives with that. This paper analyses some of the DLC delivery methods that have emerged as a result of digital distribution in games. We used data gathered through surveys conducted on consumers. Our surveys covered consumers’ attitudes towards specific DLC delivery methods. This helped us measure their purchase behaviour and purchase patterns. The purpose was to understand which DLC delivery methods are more effective at generating sales and which are more attractive or appealing to consumers. We measure effectiveness and appeal by counting the number of instances in which these would be increased or decreased. We base this on our interpretation of the results, and consumer behaviour theory.
4 Theory

In this paper we discuss about the different DLC models and how these models keep players interested in the games they are associated with. We list a four different types of models and we will refer to them as: required DLC, shared DLC, marketed DLC and optional DLC. In each of them we use a specific game as an example of the model. We also explain the various DLC types of those games. Some DLC types we do not cover due to them being irrelevant to the study. The reasons for this can vary from affecting only single player or due to being outliers to the DLC delivery method. The DLC types that we do not cover are as a result only explained in the appendix for readability purposes. A full description of them and why they are not covered in this paper can be found in Appendix E. For the purposes of this study we use consumer behaviour theory in an attempt to more efficiently measure effectiveness and appeal. This behaviour can be deducted from consumers’ purchase patterns, attitudes and needs.

4.1 Required DLC

Required DLC is a delivery method for downloadable content that requires the players engaging in a multiplayer game to own the same DLC in order for them to have access to the same content. Unless all the players involved in the game own the same downloadable content, they will be unable to play using the content that one or more players do not own. As a result, the players that do not own the DLC will have to purchase it in order to have access to the same content.

Examples of content can be expansions, new maps for the players to explore, specific scenarios for a game or new factions in a strategy game. In some cases, such as expansions, the difference between having access to them or not can be strong, as expansions tend to alter or add entirely new game mechanics. A player who owns an expansion to the game and wants to play with someone else who does not own the expansion, will have to disable their content and revert to the base game in order to play with their friend. An example of this is the game Sid Meier’s Civilization V (2010). Civilization V is a turn based strategy game, that allows players to play as different civilizations throughout history. Any information from here on in is extracted from the previously mentioned game unless otherwise stated and all discussion of required DLC is based on the way that Civilization V implements it.

Civilization V has a total of 15 DLC available for purchase, as of the 8th of April 2019. These can be categorized in 4 different forms of content, although at times some of them might be sold together. These 4 categories are Map Packs, Scenario Packs, Civilization Packs and Expansions. For a full list of all the Civilization V DLC please see Appendix D.1.

4.1.1 Map Packs

Map Packs consist of specific maps of countries, continents or points of interest in history such as a map of Japan, the continent of Africa or the Mediterranean area during the Classical age respectively. They provide access to maps that resemble their real world counterparts.
4.1.2 Civilization Packs

Civilization Packs contain extra factions, known in the game as civilizations, that participants in the game can choose to play as such as, Korea, Babylon or Denmark. Civilizations typically have access to their own specific military units, buildings as well as a unique civilization bonus that can affect how they utilize certain game mechanics or systems. The civilization packs provide players extra options in terms of what they can play as, for their session.

4.1.3 Expansions

There are two expansions for Civilization V and each add new content to the game in a similar way with some differences. The similarities between the two expansions are in the addition of several new civilizations, new scenarios and new units, technology and buildings for the game. Besides the similarities, the game’s expansions have their own modifications or additions to game mechanics.

4.1.3.1 Sid Meier's Civilization V: Gods and Kings

The first expansion to the game, released in 2012, provides a rework of the combat system and the artificial intelligence’s use of that system both in terms of land battles and naval combat. Another rework comes in the form of the city-state system, a system of diplomacy and questing that can be undergone with said city-states. One addition is that of the espionage system, that provides ways to spy, steal technology and generally interfere with other players. Previously there was no such system available. One more addition is the religion system. Players can now form a religion, with their own bonuses and traits, which they can spread in the world and to other players and engage in a form of religious warfare. This system allows for a game victory solely through religion and was previously not available.

4.1.3.2 Sid Meier's Civilization V: Brave New World

The second expansion to the game, released in 2013, comes less with overhauls of already existing systems and more with the addition of new systems or advancements of old systems such as trade, an international congress, culture system and ideologies. The new trade system consists of external trading with other civilizations or city-states or internal trading between the players own cities. Previously there was no fully developed trade system and was limited to one single mechanic. The international congress, known as the world congress in the game, is a gathering of the game world's most advanced civilizations where certain laws which will affect all players can be voted on and enacted. Previously there was no system like this in the game. The culture system allows players to spread the culture of their civilization in the world, possibly overcoming other players’ cultures. This system allows for a game victory solely through the spread of culture and was not present before this expansion. The policy system is a system that allows enactments of certain laws and ideals that affect your civilizations specializations known as ideologies.
4.1.4 Possible DLC Conflict Scenarios

When setting up Civilization V and preparing to start a multiplayer game with other players online, the host has the option to choose which DLC to activate. Depending on their choice and depending on what DLC the other players in the lobby own, some might need to be disabled so that they all can participate in the game together. Some specific scenarios of DLC ownership issues and their possible effects can arise due to the various map packs DLC, civilizations DLC, and expansions DLC.

Players who are used to having DLC in single-player mode would lose access to certain map types, civilizations and features of expansions when playing with players that do not the DLC they do. As a result they may be irritated by having to turn the DLC they grew accustomed to.

4.2 Shared DLC

Shared DLC is a delivery method for downloadable content in which the host in a multiplayer game shares ownership of their DLC. As long as the host player decides to use the DLC they own in the game, then anyone who joins the game, regardless of which DLC they own, will play using the content decided upon by the host. As a result, the players who do not own any DLC for a game can still play with the host of the game who owns DLC and have access to the same content as the host.

Examples of content can be expansions, changes to a faction’s possible progression system, addition of new events or game functionality in a strategy game. In the case of expansions, the difference between having access to them or not can be strong, even overwhelming as expansions tend to alter or add entirely new game mechanics or functionality. As a result, if the host owns all the DLC for a game and the other participants do not own any, it can result in what can feel like an entirely different game to the participants once the players start. An example of this is the game Europa Universalis IV (2013). Europa Universalis 4 is a real time strategy game allowing players to play as any nation around the world starting in 1444. Any information from here on in is extracted from the previously mentioned game unless otherwise stated and our discussion of shared DLC is based on the way it is implemented in this game.

Europa Universalis IV has a total of 57 DLC available for purchase, as of the 16th of April 2019. These can be categorized in 5 different forms of content although at times some of them might be sold together in what is known as Collections on the Steam® store page. These 5 categories are Immersion Packs, Expansions, Content Packs, E-Books and Music. For a full list of the available DLC for Europa Universalis IV please see Appendix D.2.

4.2.1 Immersion Packs

Immersion packs contain overhauls for some of the game systems based around a theme, new mechanics, new unit types, additions to of a country’s mission system, which is a system that allows a country to gain rewards based on achieving certain goals, as well as unit models and music. The game systems these packs change can revolve around some of the religions present in the game or change a country by giving it new, country specific, options such as
elite units for Russia or the ability to establish religious orders for Iberian nations. Immersion Packs can be shared if the host of the game decides to activate them.

4.2.2 Expansions

Expansions tend to revolve around expanding and improving a certain subset of the game’s systems such as trade, diplomacy, war, religion, and exploration. They generally introduce new mechanics or functionality to the game that makes for a better user experience, such as having templates for armies to train them in one click or the ability to give more direct orders to subject nations. Expansions can be shared if the host of the game decides to activate them.

4.2.3 Possible DLC Conflict Scenarios

In the case of Europa Universalis IV there are no direct conflicts arising from DLC ownership for the parties involved in the game. Players who experience the DLC that the host owns and they do not, are able to experience the content before purchasing it for themselves. It can result in players being more inclined to make a purchase if the content they experienced is to their liking. They can also be overwhelmed by the amount of new content available to them, which can make it harder for them to get an understanding of the game in its new form. Some of the expansions for the game offer functionality upgrades which can be a stronger motivation to make a purchase for that expansion, or, on the contrary, can be a deterrent towards that purchase if they feel they have been wronged to have that functionality unavailable in the base game.

4.3 Marketed DLC

For an example of Marketed DLC, we use the game Arma 3 (2013). Arma 3, is a shooter game focused around military simulation. Any information from here on in is extracted from the previously mentioned game unless otherwise stated. Marketed DLC can be seen by how it is marketed in-game. The DLC for the game includes many different types of vehicles and weapons for the player to use. The player is allowed to use these in-game to a limited degree. However, while the player is playing, the game will leave a watermark on the screen of the DLC for the weapon they are using. With continued use of the DLC item, the screen will be covered in a watermark going from top to bottom. Before the player can leave the server, they are forced to wait 10 seconds and stare at the DLC they used during the time they played on the screen.

There are eight different DLC as well as two free DLC as of April 8th 2019. These usually either contain weapons, vehicles, missions, maps, cosmetics or some combination of them. The impact on gameplay for these is quite important. The player can run out of ammo in-game and then need to pick up another weapon, only to find out that the only weapon available requires the player to buy DLC. The player can not pick up that weapon in this scenario, leaving them at an extreme disadvantage. Players can join servers to play online regardless of what DLC are on the server. However, if a DLC map is active on the server, players who do not own the required DLC can not join.
These DLC can be divided up into four different subcategories. These subcategories are Content packs, Mission Packs and one Expansion. These packs and expansion can be bought in Bundles. For a full list of all the Arma 3 DLC please see Appendix D.3.

4.3.1 Content Packs

Content packs mainly revolve around giving the player additional options when it comes to weapons, and vehicle choices as well as player customization. This can range from new Sniper Rifles, Go Karts, Helicopters, Jets, Civilian Vehicles, Tanks, Weapon Attachments, Clothing, Backpacks, and Bulletproof vests.

4.3.2 Mission Packs

Mission packs give addition content to players looking to play PvE also known as Player versus Environment, which is normally only allowed in single player. These Mission packs allow for friends to partake in new missions on new Islands in the Mediterranean Sea.

4.3.3 Expansions

When it comes to expansions, they focus more on the previous three categories combined. These expansions add new mechanics to the game, additional soundtracks, a new Factions and Mini Campaign, this mini campaign is only available for the single player and thus is outside the scope of this paper. There were two major expansions released, both of them differing in theme and location that keep both bring something new but keep the feeling of the game the same:

4.3.3.1 Arma 3 Apex

Apex was the first expansion released. Its main focus laying in the pacific instead of the Mediterranean where the game had been based before. The Island chain of Tanoa is a new map added as a part of the DLC. Tanoa is the exceptions to the Marketed DLC rule, as, if the map is active on the server, players can not join. This is the only restricted item in this delivery method. Two new factions are also introduced into the game through this expansion, the French Gendarmerie and the Syndikat. These factions both came with their own weapons, cosmetics and vehicles for the players to use. Apex was also the first DLC to add a Multiplayer Campaign allowing players to play cooperatively in a story, instead of having separate disconnected missions.

4.3.3.2 Arma 3 Laws of War

As part of a charity event to help International Committee of the Red Cross (ICRC), Laws of War took the game and changed the focus. The content added to the game was focused around Humanitarian cosmetic clothing and gear. A new faction known as International Development & Aid Project or IDAP for short was added to the game. All other DLC added to the game have add either military weapons or vehicles, instead this expansion centers around cleaning up the battlefield that has been create.
4.3.4 Possible DLC Conflict Scenarios

When setting up a server to play with friends, the biggest conflict the host has to consider is what DLC all participating members have. The server can have all the DLCs enabled on it. A player who does not own the DLC can still join this server, provided certain requirements are met, but there might still be issues pertaining to the content available on the server.

For content packs there is nothing that is preventing a player from joining the server and partaking in the gameplay. The issue however arises when the player either runs out of ammo and needs to pick up a new gun or when his friends are all using the DLC additions. The player lacking the DLC cannot use the weapon to save themselves. The same goes for vehicles. Players without the DLC cannot drive or operate weapons in or on the vehicle, they can only ride in the back or in a passenger seat. This limits the player’s capabilities and reliability in-game.

Mission and Map packs have simpler rules: if the player does not have the DLC they can not partake in them. All participating players would be required to have them both in order to play.

Expansions can be active on the server and still allow players to join and play with friends. However, if for example the Apex map Tanoa is activated on the server, then all players who do not own Apex, will be kicked off the server without warning. This is the only exception where the game will limit when you can and can’t play due to DLC.

4.4 Optional DLC

Option DLC is the delivery method of having DLC available for a set price, but it is not required for the player to purchase with real money. These can either be in the form of game changing mechanics, and cosmetic items that allow the players to customize their appearance. This method can be seen as a shortcut. A shortcut is a method by which players can purchase items in game with real money, instead of taking the time to unlock them through playing the game. This is a way for players to invest a little extra into the game and unlock content faster.

To properly explain this concept, we will be looking at the game, Tom Clancy’s Rainbow Six: Siege (2015). Rainbow Six Siege, is a first person shooter that has players play as a counter terrorist units against other players. Any information from here on in is extracted from the previously mentioned game unless otherwise stated. In the game players can receive a currency called renown by playing the game. This renown can be used to purchase characters, which are reffered to as operators, for the player and skins to place on weapons and characters. However, not all cosmetics can be unlocked this way. Certain ones are only available through cosmetic packs. Season Passes are the game’s shortcut.

There are currently 18 DLC available for the game as of the 15th of April 2019 (More have been made but are no longer available for purchase). These are divided up into 2 different subcategories, Cosmetic Packs and Year Passes. For a full list of all the Tom Clancy’s Rainbow Six: Siege DLC please see Appendix D.4.
4.4.1 Cosmetic Packs

Cosmetic Packs are merely offered to allow the player to customize their appearance. They have limited packs which are open under four periods of time a year. They offer no game changing mechanics and have only minor impacts in game. These impacts are merely there to make it so that the players may have a difficult time ascertaining which operator they killed.

4.4.2 Year Passes

Year Passes are a way of purchasing content ahead of its release that is only available for a year at a time. They function as a shortcut for the game, allowing players to pay extra money to unlock the new operators that come up without having to grind them. The Year Pass also offer additional features and content such as cosmetics and discounts in the in-game store.

4.4.3 Possible DLC Conflict Scenarios

The Optional DLC model does not open itself up much for conflict in what is bought, and how it affects the game. As the Cosmetics packs only change the appearance of weapons and skins for the operators. Year Passes only affect the player in the in-game economy. The only significant conflict that is created is that the players who own the Year Pass get access to the new operators a week early, before the rest of the players.

4.5 Consumer Behaviour Theory

The consumer behaviour theory for this paper has been extracted from Horia Pitariu and Ioana David’s course called “Psihologia Reclamei” (2006) [English: “Marketing Psychology”]. The course is originally in Romanian and was translated by Raoul Man. In this section we summarize their theory.

“Consumer behaviour has been described as being an interaction, a dynamic between impression and perception, conduct and natural encounters through which an individual directs changes in their own life” (Pitariu and David, 2006). Consumers have multiple factors influencing their decisions, such as budget available, social status, cultural background, profession and their individual personality. Factors that influence a consumer’s decision can manifest themselves into various behaviours. Pitariu and David (2006) explain Assael’s Dial, a classification of purchasing behaviour which is comprised of four types that are described in the sections below. (Figure 1)
We use this consumer behaviour theory in an attempt to classify which behaviour is more likely to occur while consumers engage in a specific DLC delivery method. Once that classification is made, we can further delve in and attempt to discuss the effects the resulting behaviour has, in terms of effectiveness and appeal. It is important to understand that these behaviours develop over time. While a consumer can have a behaviour when they first purchase a game, once they engage in that game's DLC delivery method the behaviour can change depending on the practices in that delivery method. As such this theory will allow for an analysis into what the behaviours, that have developed over time for consumers, are at the moment in time when data is collected.

4.5.1 Complex purchasing behaviour

Consumers with complex purchasing behaviour are strongly involved in the acquisition activity. They perceive significant differences between products or trademarks, especially when the product is expensive, risky or rarely purchased. The purchases can also reflect, to a degree, the purchasers’ social status. Typically, consumers do not know too much about the products they are interested in purchasing. They will, however, strive to learn about them and thus form convictions and attitudes towards a particular product leading them to an informed purchase.

4.5.2 Post-acquisition dissonance purchasing behaviour

This type of behavior occurs when consumers are strongly involved in purchasing an expensive, risky or rarely purchased product and find little difference between existing trademarks or products. Once the acquisition is completed, the purchaser may enter a certain status called post-acquisition dissonance as soon as they notice flaws or disadvantages with
their choice of purchased product. These types of behaviours typically require additional care and attention after their purchase to reduce their post-acquisition dissonance state.

4.5.3 Variety oriented purchasing behaviour

Variety oriented purchasing behaviour is most obvious in cases in which there is reduced involvement in the purchase decision from the consumer and differences between trademarks and products are significant. In such cases, consumers often change the products and trademarks they buy. These changes are characterized by the individual’s need for variety.

4.5.4 The common purchase behaviour

This behaviour occurs when the consumer is little involved in the purchase decision and differences between products or trademarks are insignificant. In this cases consumers do not research much about the products they buy and do not ponder for too long on their purchase decisions. They absorb information about the products passively through advertisements, and through repeated exposure to them they become familiar with the products. As a result, usual behaviour consumers make their decision based on familiarity with the product.
5 Method

The methods we are using are quantitative in nature. We gathered data from consumers on their thoughts about DLC, done through multiple differing surveys using scales of one to ten, multiple-choice, and yes or no questions. In the analysis of the scale of one to ten questions we calculated mean and median values for ease of data comparison and analysis. These questionnaires consisted of a general set of questions for three of the four games within the scope of this paper. One of the games, *Tom Clancy’s Rainbow Six Siege*, did not have exactly the same general questions as this game is multiplayer only and as a result does not require some of the questions we had for the other surveys. The games we analysed the DLC models for are: *Arma 3, Europa Universalis IV, Sid Meier’s Civilization V* and *Tom Clancy’s Rainbow Six Siege*. We choose these games in part due to our familiarity with them and in part due to their DLC cycle being complete, no more DLC to be released, or due to enough time passing since their release, allowing not only for a fair amount of DLC to be released but also consumers’ opinions and attitudes to be formed.

We collected information for each of the previously mentioned games’ DLC delivery methods using surveys molded around each games’ particularities. These particularities in the surveys are explained further down in the method of this paper. Generally, the surveys focused on gathering information pertaining to how consumers purchase DLC, as well as what encourages or discourages players to purchase certain DLC. The focus, in terms of what kind of players are targeted, is those that participate in multiplayer. These surveys were posted on Steam® community forums, forums hosted by the developers, various fan sites and subreddits on the website Reddit® for each game. A complete list of the websites we posted the surveys on can be found in Appendix A.

The information collected was then documented and for ease of information readability tables for each of the surveys results where formed.

Due to the DLC methods mainly affecting participants in multiplayer and one of the games being available as a multiplayer only title, we ignored any single player respondents’ answers. As we used a quantitative focus on our surveys, we did not include the additional feedback part of the surveys as they were outside the scope of this paper. We then compared consumer attitudes and reasoning behind towards different DLC delivery methods and the respondents’ purchase patterns. Based on each questions’ indication of appeal or effectiveness we counted the instances of those indications. Once those instances were combined for each of the DLC models we had an overview on all of them under one table. The purpose was to understand which DLC delivery methods are more effective at generating sales and which are more attractive to consumers. As a result, our analysis should help us determine the effectiveness and appeal to consumers, of the four DLC delivery methods mentioned in this paper.

We also used the different consumer purchase behaviour types mentioned in the theory section of this paper, in an attempt to classify which types are more prevalent for each DLC delivery model. We do this in order to understand which types of purchase behaviours are present and which are more likely to occur in each of the DLC delivery models presented and as a result determine if those behaviour types are catered to or not which can have effects on the models’ appeal and effectiveness. We did not attempt a statistical correlation which would be beyond the scope of this paper.
5.1 Required DLC

In our *Sid Meier’s Civilization V* survey, we focused on the requirement for all players to own the same DLC and have them enabled in order to play and the consequences that might arise from that. The consequences can be players being prevented from joining a game, or the requirement acting as a deterrent for future DLC purchases. For the complete version of the survey please refer to Appendix B.1.

5.2 Shared DLC

In our survey pertaining to *Europa Universalis 4*, the focus lay on questions about the ability of the host to share their DLC with other players in the game. For this we asked what players thought about this feature, and then moved on to see if this had encouraged them to purchase the DLC after playing. We then had them answer how they felt about added functionality being locked behind DLC and if this made them more or less reluctant to purchase it. For the complete version of the survey please refer to Appendix B.2.

5.3 Marketed DLC

In our survey pertaining to *Arma 3*, the survey had a focus on the restrictions and marketing in the game. It asked questions about the watermarks on players’ screens and if they had affected their gameplay experience at all and if this has swayed them into buying DLC. We ended by asking if they felt that watermarks were a worthwhile compensation for not owning the DLC. For the complete version of the survey please refer to Appendix B.3.

5.4 Optional DLC

In our survey pertaining to *Rainbow Six: Siege*, the focus lay with whether or not the price is worth the purchase. We asked players if they have purchased year passes and if so how many, if they felt the need to purchase them, and if it was difficult unlocking characters in-game without the pass. We also asked if they purchased the cosmetic items, and if so why or why not. For the complete version of the survey please refer to Appendix B.4.

5.5 Limitations

One limitation was that we did not have a large enough sample size through our surveys. That can result in a skewed comparison and results. Some of the games we gathered information on were released several years in the past and getting results from them was difficult.

Another limitation, was that the number in responses for each game varied significantly. This limited our ability to make comparisons because some of the games being compared received more responses than the other games. We received insufficient data for reliable statistical corelation.

For exposing our surveys, they were posted on forums related to the games. Limitations we had with this were that the posts were lost in a sea of other posts. There was also the problem of one of our surveys in these forums being locked by moderators.

Another problem is that respondents were self-selected.

From our data we can only ascertain what behaviour was present at the moment the data was gathered and from that which one is more likely to continue being present. We also can not ascertain what behaviour the customer had before engaging in the DLC model.
For *Rainbow Six: Siege* we did not bring up in the survey the option for people to answer whether or not they have purchased operators with premium currency. If we had included this it might have changed some of our results.
6 Results

In response to our surveys we gathered a total of 428 respondents across all surveys for each different DLC delivery method.

6.1 Required DLC

For Sid Meier’s Civilization V, we had a total of 51 respondents. As a result of ignoring single player respondents we are left with a total of 35 answers. Table 1 contains an overview of the results from the surveys. For a complete list of the questions please refer to Appendix B.1

Table 1. Required DLC Survey Results.

<table>
<thead>
<tr>
<th>Questions Required DLC</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>When it goes on sale</td>
</tr>
<tr>
<td>4</td>
<td>Interesting Content</td>
</tr>
<tr>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>(Disapprove)</td>
</tr>
<tr>
<td>7</td>
<td>No</td>
</tr>
</tbody>
</table>
For a complete look at the results in a charts format please refer to Appendix C.

6.2 Shared DLC

In the case of *Europa Universalis IV* we had a total of 106 respondents. As a result of ignoring single player respondents we are left with a total of 64. Table 2 contains an overview of the results from the surveys. For a complete list of the questions please refer to Appendix B.2

Table 2. Shared DLC Survey Results.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Shared DLC</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>64 (100%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>2</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>60 (93,8%)</td>
<td>4 (6,2%)</td>
</tr>
<tr>
<td>3</td>
<td>When it goes on sale</td>
<td>When it is released</td>
</tr>
<tr>
<td></td>
<td>40 (62,5%)</td>
<td>18 (28,1%)</td>
</tr>
<tr>
<td>4</td>
<td>Interesting Content</td>
<td>Purchased it because I played with a friend that owned that DLC</td>
</tr>
<tr>
<td></td>
<td>29 (45,3%)</td>
<td>10 (15,6%)</td>
</tr>
<tr>
<td>5</td>
<td>(Disapprove) 1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>6</td>
<td>(Not at all) 1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>7 (10,9%)</td>
<td>1 (1,6%)</td>
</tr>
</tbody>
</table>
For a complete look at the results in a charts format please refer to Appendix C.

### 6.3 Marketed DLC

As for *Arma 3* we had a total of 213 respondents. As a result of ignoring single player respondents we are left with a total of 199. Table 3 contains an overview of the results from the surveys. For a complete list of the questions please refer to Appendix B.3

**Table 3. Marketed DLC Survey Results.**

<table>
<thead>
<tr>
<th>Questions Marketed DLC</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>199 (100%)</td>
</tr>
<tr>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>195 (98%)</td>
</tr>
<tr>
<td>3</td>
<td>When it is released</td>
</tr>
<tr>
<td></td>
<td>94 (47,2%)</td>
</tr>
<tr>
<td></td>
<td>Interesting Content</td>
</tr>
<tr>
<td>---</td>
<td>---------------------</td>
</tr>
<tr>
<td>4</td>
<td>108 (54.3%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>130 (65.3%)</td>
<td>69 (34.7%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(Irritating) 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10 (Don’t mind it)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>38 (19.1%)</td>
<td>15 (7.5%)</td>
<td>31 (15.6%)</td>
<td>30 (15.1%)</td>
<td>19 (9.5%)</td>
<td>12 (6%)</td>
<td>18 (9%)</td>
<td>7 (3.5%)</td>
<td>6 (3%)</td>
<td>23 (11.6%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>186 (93.5%)</td>
<td>13 (6.5%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(Irritating) 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10 (Don’t mind it)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>29 (14.6%)</td>
<td>9 (4.5%)</td>
<td>19 (9.5%)</td>
<td>23 (11.6%)</td>
<td>25 (12.6%)</td>
<td>7 (3.5%)</td>
<td>7 (3.5%)</td>
<td>28 (14.1%)</td>
<td>15 (7.5%)</td>
<td>34 (17.1%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>107 (53.8%)</td>
<td>92 (46.2%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>157 (78.9%)</td>
<td>42 (21.1%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(Intolerable) 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10 (Tolerable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>12 (6%)</td>
<td>8 (4%)</td>
<td>9 (4.5%)</td>
<td>9 (4.5%)</td>
<td>13 (6.5%)</td>
<td>15 (7.5%)</td>
<td>16 (8%)</td>
<td>29 (14.6%)</td>
<td>17 (8.5%)</td>
<td>69 (34.7%)</td>
</tr>
</tbody>
</table>

For a complete look at the results in a charts format please refer to Appendix C.
6.4 Optional DLC

For *Tom Clancy’s Rainbow Six Siege* we had a total of 58 respondents, a game in which players can only play multiplayer. Table 4 contains an overview of the results from the surveys. For a complete list of the questions please refer to Appendix B.4

Table 4. Optional DLC Survey Results.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional DLC</td>
<td>None</td>
</tr>
<tr>
<td>1</td>
<td>17 (29,3%)</td>
</tr>
<tr>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>40 (69%)</td>
</tr>
<tr>
<td>3</td>
<td>I want to support the game</td>
</tr>
<tr>
<td></td>
<td>9 (20%)</td>
</tr>
<tr>
<td>4</td>
<td>Don't mind unlocking operators</td>
</tr>
<tr>
<td></td>
<td>15 (33,3%)</td>
</tr>
<tr>
<td>5</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>39 (67,2%)</td>
</tr>
<tr>
<td>6</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>48 (82,8%)</td>
</tr>
<tr>
<td>7</td>
<td>I see something I like</td>
</tr>
<tr>
<td></td>
<td>37 (63,8%)</td>
</tr>
<tr>
<td>8</td>
<td>Through ingame renown</td>
</tr>
<tr>
<td></td>
<td>32 (55,2%)</td>
</tr>
</tbody>
</table>

For a complete look at the results in a charts format please refer to Appendix C.
7 Analysis

7.1 Required DLC

In the case of Sid Meier’s Civilization V, 62.9% of respondents buy DLC due to interesting content. However, 17.1% buy DLC due to a need to have it in order to play with their friends which indicates that the requirement to own the same DLC in order to play with your friend has validity in terms of effectiveness. As for purchase behaviour, 62.9% purchasing due to interesting content can indicate that respondents to some extent, research the DLC before purchasing them. This can indicate the presence of complex purchasing behaviour.

In regard to players being prevented from playing with their friends due to not owning the same DLC, 51.6% of participants have not played a game with their friends because one or more of them did not have all the DLC the others had available. This results in a decrease of attraction for the model. The majority (51.6%) of respondents not playing with their friends due to the requirement to own the same DLC, can result in the respondents perceiving a disadvantage with the product they purchase and as such lead in to a state of dissonance that can later trigger a post-acquisition dissonance behaviour.

In terms of how participants feel about the requirement for them to own the same DLC in order to play with friends we calculated a mean value of 4.23 and a median value of 3 where 0 is disapprove and 10 is approve. As a result of the somewhat negative response to the aforementioned requirement of DLC ownership we can notice that Civilization V has a less attractive DLC delivery method. The results also show what can be perceived as a disadvantage with the product and can thus induce a state of dissonance. This further increases the likelihood of a post-acquisition dissonance behaviour.

Players being prevented from playing with their friends due to the requirement to own the same DLC, and showing a negative response to the aforementioned requirement has manifested itself in the last question. The response to the question of the requirement acting as a deterrent for additional DLC purchase shows that 42.9% of participants have been deterred from additional DLC. While not a majority (42.9%) of respondents, the results shows that the effectiveness of this model is somewhat blunted. It can also show that a significant part of the participants have a post-acquisition dissonance behaviour that has not been catered to in order to reduce it.

7.2 Shared DLC

In the case of Europa Universalis IV, 45.3% of respondents buy DLC due to interesting content. However, 15.6% buy DLC due to a wish to play said DLC with their friends and another 15.6% buy DLC in order to support the game. These results show an effectiveness of the model in terms of purchasing DLC to play with friends and that the model is attractive enough to warrant support of the game as a reason to purchase DLC. 45.3% purchasing due to interesting content can indicate a complex purchasing behaviour as the participants have researched the content somewhat before committing to the purchase. The decision to buy DLC in order to support the game from 15.6% or consumers can also indicate the presence of the common purchase behaviour as their purchase is mostly realized due to their familiarity with, or loyalty, to the product.

In regard to how participants feel toward the option for a host to share the DLC that they own with their friends we calculated a mean value of 9.61 and a median value of 10 with 0 as disapprove and 10 as approve on the scale. This results show that the DLC delivery method is
attractive to consumers. The calculations also show that due to the approval rate of this method it does not create dissonance and can allow for players to be more knowledgeable about the product before committing to a purchase. This can foster the appearance of the complex purchase behaviour.

For the question of how respondents feel about added functionality being only available in certain DLC we calculated a mean value of 5.33 and a median value of 5 with 0 as irritating and 10 as not minding it. This shows a divided sentiment towards this as people both find it irritating and have no problems with it, in equal measure. This means that there is a minimal loss to the appeal of the model. It can also foster a post-acquisition dissonance behaviour as noticing a lack of functionality due to not owning specific DLC can result in the players perceiving a disadvantage with the base product.

To the question of whether or not added functionality being available only in certain DLC acting as a deterrent from future purchases, 81.3% have not found it as a deterrent. As a result, the remaining 18.7% can be seen as having a minor impairment, on the effectiveness of the DLC delivery method. Due to the majority (81.3%) of respondents not being deterred to commit on a purchase by the added functionality in certain DLC, the likelihood of post-acquisition dissonance behaviour is reduced and thus allows other behaviours to take hold.

In the case of how much more likely respondents are to purchase DLC as a result of having experienced the added functionality in a DLC that was shared with them, we calculated a mean value of 7.35 and a median value of 8. In this scale question 0 is not at all likely and 10 is more likely. These values show a contribution to making the DLC model more effective. The calculations can also show that the complex purchase behaviour is present as customers are more knowledgeable on the specifics of what is offered to them in a DLC and those customers are more likely to make a purchase with more information on their side.

For how much more likely or not participants are to purchase a DLC after having it shared with them by their friends, we calculated a mean value of 6.42 and a median value of 7, 0 being not at all likely, and 10 being more likely. This shows that the concept of sharing DLC is somewhat effective. The presence of the complex purchasing behaviour can also be noticed here, and comes as a result of the method of sharing DLC. More information for a consumer that finds themselves to be acting according to the complex purchase behaviour increase the chances that they would commit to a purchase.

7.3 Marketed DLC

When it comes to Arma 3, players acquire DLC as a result of interesting content with 54.3%. 20.1% purchase DLC in order to support the game and 8.5% acquire DLC due to a requirement imposed by the server they play on to own said DLC. The second highest percentage shows that the model is attractive enough to warrant support for the game and the 8.5% of respondents purchasing DLC due to a need to play on certain servers shows a somewhat minor effectiveness. The results can also show the presence of a complex purchasing behaviour due to the 54.3% of participants purchasing due to interesting content, content that they would have researched to decide whether or not it is interesting. The 20.1% that purchase due to a desire to support the game can indicate the presence of the common purchase behaviour as the purchase is made based on a familiarity with the product.

When asked if respondents were ever left out of a game because they have not purchased DLC 65.3% have answered that they haven’t while 34.7% of them have answered that they have. While not a majority (34.7%), the percentage of respondents that have been left out of a
game does show a significant decrease in appeal. In this case the responses show that the post-acquisition dissonance behaviour is somewhat fostered, although it has not taken hold, as a significant proportion has been left out of games due to not owning certain DLC.

In response to how participants felt about not being able to join a server because they do not own the DLC for that server we calculated a mean value of 4.59 and a median value of 4, where 0 is how irritated they were and 10 is that they do no mind. These values show that respondents are more irritated resulting in a decrease in appeal. Participants, not being able to join servers due to now owning DLC, can reveal to them a disadvantage with the product which can then result in the post-acquisition dissonance behaviour taking hold.

93.5% of respondents have been able to use a weapon available due to a DLC. The follow up question of how participants felt about watermarks when using DLC weapons or vehicles, we calculated a mean value of 5.69 and a median value of 5, where 0 is how irritated they were and 10 is that they do no mind. These calculations show that there is no significant effect on appeal in regard to how people interpret the model. The values also show that some dissonance is possible which can foster the presence of the post-acquisition dissonance behaviour.

As for if the watermark intruded while playing, 53.8% of respondents have answered that it has not, while 46.2% of participants have answered that it has. These results show that the model is effective in terms of players noticing the system, however, it decreases the appeal as it can frustrate players that are intruded by the watermark system. The watermarks intruding while playing can also lead the players to perceive a disadvantage with the product which can increase the likelihood of the post-acquisition dissonance purchase behaviour.

In regard to how respondents felt about having watermarks on their screen, as compensation for not owning the DLC from which the items they used came from, we calculated a mean value of 7.23 and a median value of 8, where 0 is intolerable and 10 is tolerable. This shows that the model itself is more attractive to players, as it lets them use this equipment. However, it is less effective as participants seem to tolerate it.

When it comes to whether or not players have bought DLC because of watermarks on their screen, 78.9% of people answered no, and 21.1% of people answered yes. A majority (78.9%) of respondents do not purchase DLC because of watermarks which shows a lack of effectiveness from the DLC delivery method.

### 7.4 Optional DLC

In the case of *Tom Clancy’s Rainbow Six Siege*, 29.3% of people did not purchase any of the passes, 15.5% purchased only one, 22.4% of people purchased two, 15.5% acquired three of them and 17.2% of people purchased all four year passes available. This shows that 70.7% of respondents have purchased one or more of the year passes. These results reveal that the model is effective in convincing consumers to engage and purchase within model. 70.7% of participants purchasing year passes can indicate a need for variety which can result in the variety oriented purchase behaviour taking hold.

69% of participants feel that the benefits of the year pass are worth purchasing, while 31% of people did not. This results in an increase in appeal towards purchasing additional passes. 69% feeling that their purchase was worth making, can show a decrease in the chances of the post-acquisition dissonance behaviour occurring.
In terms of reasons for purchase, responses are mixed. 20% purchase year passes in order to support the game, 17.8% in order to get operators early, another 17.8% so that they can avoid unlocking operators, 15.6% for the additional content in the year pass and 13.3% due to a lack of time to unlock the operators through in game means. The percentage of participants that support the game show that the model is attractive enough to warrant support for the game. The other percentages where participants avoid unlocking operators, purchase in order to receive access to operator early and participants acquire the year pass due to a lack of time to unlock operators through in game means, show that the DLC delivery method is effective. 20% of participants purchasing due to desire to support the game can indicate the presence of the common buying behaviour as they commit on the purchase based of their loyalty or familiarity with the product. 64.5% of respondents have purchased DLC due to a desire to receive access to operators. Those operators increase the variety available to consumers. This can indicate a need for variety which indicates that the variety oriented purchase behaviour is present.

When it comes to the reason as to why respondents would not purchase year passes 33.3% answered that it is because they do not mind unlocking the operators through in game means and 13.3% because they believe the content does not warrant the price. These numbers show a decrease in effectiveness.

Out of all the respondents 67.2% feel that it is not challenging to earn renown, the currency awarded for playing the game normally, while 32.8% feel that it is challenging. These results show that the DLC model is more attractive as players feel the rate at which they receive the in game currency is rewarding. The numbers also show that most of the participants do not perceive the possible disadvantage, that would be manifested as a challenge, to earning the in-game currency that allows them to unlock more variety through operators. As a result, it decreases the chances of the post-acquisition purchase behaviour occurring.

The main way participants unlock new operators is through renown, 55.2% of respondents doing so. 44.8% of respondents unlock access to new operators through year passes. This shows a decrease in the effectiveness of the DLC delivery method, as close to half(44.8%) of the participants unlock operators with renown.

When asked if the respondents feel like they need to purchase year passes 82.8% answered that they do not feel so. 17.2% answered that they do feel like they need to purchase year passes. These numbers show that the DLC model is attractive as 70.7% have purchased year passes, even though 82.8% do not feel the need to do so. Not feeling the need to purchase year passes, indicates that the product does not coerce consumers to do so. That can result in consumers not perceiving a disadvantage which does decrease the likelihood of the post-acquisition dissonance purchasing behaviour. As mentioned previously 70.7% do purchase year passes and they do so while not feeling like they need to purchase them which further indicates that they are in need of variety. That results in the variety oriented purchasing behaviour occurring.

### 7.5 Summary

The analysis showed instances in which consumers are attracted to the models presented. Instances in which the models are effective or not were also noted. The consumer behaviour that is more likely to manifest in each model was also able to be deduced from the analysis. All of this information has been gathered in a summary under Table 5.
Table 5. Analysis Summary.

<table>
<thead>
<tr>
<th>DLC Delivery Method</th>
<th>Appeal Based on Instances</th>
<th>Effectiveness Based on Instances</th>
<th>Purchase Behaviour Most Likely to Manifest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required DLC</td>
<td>-2</td>
<td>1</td>
<td>Post-acquisition dissonance purchase behaviour</td>
</tr>
<tr>
<td>Shared DLC</td>
<td>2</td>
<td>3</td>
<td>Complex purchase behaviour</td>
</tr>
<tr>
<td>Marketed DLC</td>
<td>-1</td>
<td>-2</td>
<td>Post-acquisition dissonance purchase behaviour</td>
</tr>
<tr>
<td>Optional DLC</td>
<td>4</td>
<td>0</td>
<td>Variety-oriented purchase behaviour</td>
</tr>
</tbody>
</table>
8 Discussion

In general, DLC delivery methods have to find a way to keep a balance between how attractive the model is and how effective it is. An attractive model convinces consumers to possibly engage with it which can be based on the methods they employ. The effectiveness in terms of sales of a model affects how much consumers actually purchase within that model, how the methods and appeal of the model combine to convince customers to make a purchase.

DLC models employ a combination of effectiveness and appeal to keep people interested in them. The more attractive, the more likely the effectiveness is to take root and thus a cycle start where consumers are hooked in by appealing methods to then be sold DLC through effectiveness oriented methods. Once consumers are accustomed to the DLC delivery method, a purchase behaviour towards the model can develop over time. Once that behaviour is developed the DLC model can further increase appeal and effectiveness. It can increase appeal if the method caters to that behaviour as consumers with the catered to behaviour would be more attracted towards the model. Once consumers are catered to in their behaviour they will be more likely to commit towards a purchase, thus increasing effectiveness in terms of sales. Figure 2 provides an overview of this process.

This paper focused on the behaviours noticed from the results. As such we can only discuss what type of behaviour the DLC delivery method fosters and the possible implications of that. A consumer, however, can be attracted to a model due to already having a behaviour that fits with that model as their way of making a purchase if catered to. Another possibility is that the behaviour towards the DLC delivery method changes due to the methods used in the model. Figure 3 provides an example of this.

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![Diagram](diagram.png)

**Fig 2. Behavioural Purchase Cycle**

This paper focused on the behaviours noticed from the results. As such we can only discuss what type of behaviour the DLC delivery method fosters and the possible implications of that. A consumer, however, can be attracted to a model due to already having a behaviour that fits with that model as their way of making a purchase if catered to. Another possibility is that the behaviour towards the DLC delivery method changes due to the methods used in the model. Figure 3 provides an example of this.
8.1 Required DLC

In the case of required DLC, a delivery method present in Sid Meier’s Civilization V, the methods are seemingly more aimed towards effectiveness and to a lesser extent appeal. The focus towards effectiveness can be noticed in the case of the respondents who purchased DLC due to a need to have it to play with their friends, as the requirement to own the same DLC has pushed consumers into acquiring DLC for the aforementioned reason. As a result of the focus towards effectiveness there is a lack of balance between how attractive the model is and how effective it is. The reason for that is that players have been prevented from playing the game with their friends due to them not owning the same DLC and respondents do not approve of the method in which consumers are required to own the same DLC as the players they would be playing online with. These reasons show that the model is not attractive for consumers.

The imbalance between effectiveness and appeal can ultimately affect one or the other, as the percentage of respondents that answered that they have been deterred from purchasing additional DLC, is of some significance. While not a majority (42,9%), it does result in the effectiveness of the DLC delivery method being negatively affected. As such the appeal of the model is low and effectiveness is lowered by the low appeal towards the model. The cycle of attract and then sell is somewhat disrupted.

When it comes to the consumer behaviour that is more likely to manifest in the required DLC model based on the analysis, post-acquisition dissonance purchase behaviour is more likely to occur. The encouragement comes from the disadvantages that are noticed by consumers when faced with the requirement of owning the same DLC. The disadvantages come in the form of not being able to play the game in multiplayer with their friends with any DLC that they have bought. When post-acquisition purchase behaviour occurs the way to reduce it is to provide extra care and attention to customers that have developed that behaviour. As it stands, we could not identify any method in which Civilization V has provided consumers with more care and attention. If that does not to happen it can further affect the effectiveness of the DLC delivery method

8.2 Shared DLC

When it comes to Shared DLC, a delivery method present in Europa Universalis IV, the methods seem to be aimed towards a mixture of effectiveness and appeal. Methods that we
can see are employed, are those of allowing hosts to share the DLC they own with other players and improving the functionality of the game in certain DLC.

These methods can synergise as players can test the DLC and the added functionality before purchase. Being allowed to test a product before purchase and to play content that their friends own, serves to increase both appeal and effectiveness.

The effectiveness of the model can be seen in the purchases made based on a wish to support the game, and due to a wish to play said DLC with friends. The fact that experiencing DLC and their added functionality, with friends, has made consumers more likely to purchase DLC, exemplifies the methods the DLC model employs to make it more effective, encouraging purchase of DLC in order to share it or as a result of experiencing it.

How attractive the model is, is mainly affected positively by the allowance of sharing owned DLC with friends. While added functionality being available only in certain DLC can affect how appealing the model is negatively it does not seem to conclusively do so as the sentiments of respondents are somewhat split on that and it has not acted as a deterrent from future DLC purchases.

The balance between effectiveness and appeal serves to nurture a cycle of attract and sell, where the appeal of being able to share DLC or have DLC shared to, creates goodwill towards the product and provides information on the quality of the products in a hands on approach. The appeal of the model then offsets the possible negative appeal effects of some of the effectiveness methods, such as having added functionality only available in certain DLC. This allows the methods that increase how effective the delivery method is, to fully take root. As such the shared DLC delivery method strikes somewhat of a balance between how attractive the model is and how effective it is.

As for the consumer behaviour that is likely to originate from the methods of the delivery model, the complex purchasing behaviour seems to be more likely. A significant part of the respondents purchase due to interesting content, making it more likely that they have researched, at least on a base level, what the product they are about to purchase offers. The chance to experience DLC and their functionality especially contributes to this, as customers are given a chance to try the product and thus acquire more information before making a purchase. Not only is this type of behaviour encouraged, but it is also catered to for the same reasons as mentioned previously. Encouraging the complex purchasing behaviour and then catering to that behaviour, servers to further increase the effectiveness of the DLC delivery method, as the more information someone that engages in this behaviour has, the more likely they are to make a purchase.

**8.3 Marketed DLC**

When looking at the methods of Bohemian Interactive, in their game *Arma 3* which uses the marketed DLC delivery method. The company incentivizes players by allowing them to enable content from DLC on their servers, with the exception being maps. This is the only true restriction on the game.

On the subject of consumer motivations towards DLC content, participants in the survey answered that a majority (54.3%) of them will buy DLC because of interesting content. This shows that Bohemian interactive with their model are releasing consistent and reliable content for players. A significant amount of people bought the DLC to support the game. This shows a degree of consumer loyalty towards to the product and the model. The only major restriction
forced upon players was, that if the server was using a certain map for the game, they can not join. Even though less than a tenth of the respondents said that their main reason behind buying DLC was that they bought it for the servers they play on. The efficiency reduction as a result of this is minimal, as players are not being forced to purchase DLC in order to play on the server they want to.

Respondents were asked if they have ever been left out of a game because of a certain map on a server being enabled. While the majority (65.3%) said that they have not been affected by this. Over a third of them say that they have been left out. When it comes to Arma 3 however, servers would need to change the mission, as maps and missions are linked. You can not simply do the same thing on a different map. The survey does not show this, but players who could have been left out of a game might say that they have not been left out, as the server host might have switched the mission itself, leading to a decrease in appeal as players who might have been looking forward to playing a certain DLC mission would be annoyed over the fact that they have to decide between playing with friends or playing with the DLC.

We can see this in the next question, in which participants were asked about their feelings towards this restrictive nature about people being left out because of the map choice. This number is not simply from respondents that were affected by this, or by people unaffected. It also shows overall feelings of these players, placing themselves in the feet of others to see how they would react to this feeling, or the feeling of leaving your friend out.

Moving on the watermarks that players have on their screen during play, the overwhelming majority (93.5%) of people in the survey said that they have used a DLC weapon to some degree. Using a DLC weapon or riding in a DLC vehicle will generate a watermark on the players’ screen, and with continued use players will have a full screen watermark, obstructing their view. Players where then asked how they felt about having these watermarks on their screen. Results seemed to show players do not mind them. If people are riding in a vehicle it would not really affect them as they are just sitting and waiting to get to their next destination. When players are in a firefight however, where they need to constantly find targets to engage, it could be seen as irritating. There seems to be a good balance in between times it does this, as players do not see it as too irritating.

Moving on to the subject of how often these watermarks actually get in the way of playing. This method really can be seen as a double edged sword, as it gets players to notice it, however it gets players frustrated when it blocks their screen, as nearly half have stated that it has gotten in their way while playing.

Participants responding to how they felt that the watermark was on their screen as compensation for not owning the in use DLC, said that they thought it was a more than reasonable trade to not owning the DLC. This shows that players are willing to tolerate the DLC delivery method. This though, is a problem for the effectiveness of this model, as players are willing to ignore it.

The survey was used to gain information pertaining to just how effective the method of placing advertisments in games, and if these advertisements actually converted people to buy the DLC advertised. The majority (78.9%) of players said that they have not purchased DLC because of the advertisements. This shows that the model does not have the effect that it was intended to have.

When it comes to finding a balance between the effectiveness and the appeal for the model, we need to take it to consideration that there is not much appeal or effectiveness in the model.
The methods that would cause changes in effectiveness or appeal tend to cancel one other out. However, in *Arma 3*, the means in place have not been shown to increase effectiveness, as the advertisements for the DLC do not seem to bother players into purchasing them. The appeal does increase as an effect of not locking servers based on DLC, however it is hurt as a result of map restrictions and the feeling of irritation that the advertisements create.

In the case of consumer behaviour that is more likely to appear, as a result of the methods employed in the marketing DLC model, the post-acquisition dissonance purchase behaviour is more likely. This behaviour is fostered due to requirements to own certain DLC parts, such as maps, in order to join a server if that part of the DLC is active and watermarks appearing on the screen when using certain items. The reasons why this behaviour type is fostered can lead players to realize disadvantages in the product such as being excluded from games and intrusion to gameplay caused by watermarks that cover the players’ screen. Once those disadvantage have been revealed to players the post-acquisition dissonance purchase behaviour is present. If consumers that engage in this behaviour are not given more care and attention to offset the disadvantages they perceive then it can affect how effective the DLC delivery method is. As it stands, we have been able to identify one method that has been provided by *Arma 3* that provides consumers with more care and attention. This method is that if a DLC is enabled on the server, players are still able to join.

### 8.4 Optional DLC

When it comes to *Rainbow Six: Siege*, by Ubisoft, in their method of DLC delivery, the incentive for players is to purchase year passes to get early access and fast track their way to additional content. This model only restricts players if they do not purchase the pass, as they have to unlock the content themselves, and wait an additional week before getting access.

The first aspect to bring into discussion, is the amount of year passes purchased by player. When looking at the numbers from the analysis, we can see that the highest percentage of players, did not buy any of the year passes. However, the majority (70.7%) of participants, have purchased at least one or more of these passes. This shows that players were willing to engage in the model and at least try out the year pass once. Adding in the data from the next question, people believed the pass was worth the money. This does explain why consumers have purchased the pass for at least one year.

When it comes to their reasons of why and why not to purchase. Most people who said that they purchased it, did it mainly to support the game, the others all revolved around the actual content that was given in the year pass, whether it was the early access to operators, not having to grind them out, or the additional content they received as a part of it. However, the people who did not buy the passes said that the main reason they did not purchase was, that they did not mind unlocking the content. Seeing the number of players drop each year shows that players are willing to spend more time playing and unlocking content than purchase the year passes.

In the data we gathered from respondents pertaining to acquisition of in game currency, players said that they did not find it difficult to obtain currency for unlockable content. The model is meant to make it so players can unlock content without purchasing additional content. This process of unlocking content via playing in-game can be seen as rewarding to players. They worked to get the content and it is a bonus to them when they finally reach the goal. This can be seen by the how often people unlock content in game compared to purchasing it through the year pass. Further evidence of this is that the majority (82.8%) of people say that they do not feel the need to purchase the year pass. These players have the
option to unlock then in the game by playing or spending additional money on the game to unlock them instantly and with some extra content attached. Players that purchase year passes who feel they might need them, most likely do it because they feel as though they need to keep up with other players, but do not have the time to unlock them through game play.

In terms of effectiveness and appeal, the DLC delivery method, shows that the game has as extremely high attraction level, as it allows players to pay or not to pay depending if they want or if they can afford the year pass. There is no essential content locked behind a paywall and players are not punished for not having new content. In effectiveness however, there is an incentive to purchase the year passes, as players feel that they are worth the price, or it allows for players that do not have the time to unlock content in game to skip the process of unlocking. The downside though is that they do not feel the need to purchase the year passes, as shown in the results, as well as, that it might be a rewarding sense of accomplishment to unlock them through the game.

In the case of Tom Clancy’s Rainbow Six Siege, the most likely behaviour to emerge is the variety oriented purchase behaviour. This behaviour is more naturally fitting to how a game like Rainbow Six Siege works due to having operators, each with their own gadgets, weapons and special abilities. As a result of having significant differences between the operators it can foster the appearance of the variety oriented purchase behaviour. The presence of the aforementioned behaviour is shown in the number of respondents that have purchased year passes and the reason behind most of the participants’ purchases. The variety oriented purchase behaviour is catered to by providing more operators for consumers to choose from on a year by year basis. With that taken into consideration it does help the DLC delivery method by increasing its effectiveness due to the main purchase behaviour being fostered and then provided to.

8.5 Summary

The models we mentioned in this paper have various balances between how effective and appealing they are. Some of them share similar methods such as requirements for multiplayer games being shared between the required DLC and marketed DLC models. Also hosts in both the shared DLC model and the marketed DLC model are able to share what DLC they own, to some extent. The balance that they arrive at does not need to be equally effective and equally appealing. Depending on the position of the company that employs the method, some more effective yet less attractive methods can be used, provided it does not send the balance into extremes. While the balance does not need to have an equality between effectiveness and appeal it should not be too far in one direction either. Models that are not attractive at all will ultimately see consequences that affect how effective that model will be. A similar situation can be said for models that are too attractive as without some method in which to encourage effectiveness the model will be entirely reliant on the goodwill of the consumers which can at times be fragile to various external factors.

Required DLC can then be seen as a delivery method predisposed to a low effectiveness due to it not being attractive to consumers and due to the purchase behaviour that is more likely to appear not being catered to, that of post-acquisition dissonance.

Shared DLC is a DLC model that is very attractive that employs some methods that also increase effectiveness but decrease appeal. In this case the model can afford to lose some of its appeal as it increases appeal with other methods. The model also increases its effectiveness by catering to a purchase behaviour that the model itself helps nurture, that of the complex purchase behaviour.
Marketed DLC is a delivery method that also has predispositions towards a low effectiveness as the methods, while obvious to the consumer, do not succeed in convincing them to purchase. The methods themselves are not appealing to respondents either, which also results in a low appeal. This combined with the increased likelihood of the post-acquisition dissonance purchase behaviour to appear, can further lower the effectiveness of the model. However, marketed DLC does in its methods alleviate somewhat the dissonance factor, which helps lower the chances of the aforementioned behaviour to appear.

Optional DLC, as a DLC model relies on consumers deciding that they want to have access to certain content faster. How attractive the model is comes from the option to pay or not for content, depending on the consumers financials at the time, as content can also be unlocked through in game means. The method that increases effectiveness comes from the option to skip the in-game means and thus have access to the content instantly. The variety oriented purchase behaviour is fostered in this model as the more content available and more varied it is the more likely this behaviour is to appear. Once it appears it is catered to by the continued addition of new content in the form of operators. This helps increase how effective the DLC model is as a whole.

The use of consumer behaviour theory allowed for a somewhat more in depth understanding of how the delivery methods mentioned in this paper function and this specific theory seemed most adaptable to the subject. It helped understand what the behaviour that formed was and then what situations would allow or dissallow that behaviour to continue. However since we can only ascertain what behaviour was present at the time of data collection a different approach to using this theory might be more appropriate. A method that allows for tracking of the behaviour that was present when the consumer first engaged with the DLC delivery method and then is able to track the developmental change of that behaviour over time would be more efficient.
### 9 Conclusion

When looking at the various DLC delivery methods we can, with some accuracy, state how different delivery methods impact consumers in terms of appeal and sales effectiveness. Which purchase behaviour consumers have and which one are they most likely to continue having, helps in understanding how appealing and effective a DLC delivery method is.

Required DLC tends to discourage additional purchases through its heavy restrictions on multiplayer gameplay. Players are further discouraged as the post-acquisition dissonance purchase behaviour is present. Since they are not being catered to, there is no reduction in the post-acquisition dissonance state. With that being said the model has managed to keep its impact on effectiveness positive. The methods impact on appeal however, is on the negative spectrum.

Shared DLC encourages consumers to purchase additional content after having experienced it with a host in a multiplayer game. Consumers are further encouraged to purchase, as the behaviour that is more likely to appear, that of the complex purchase behaviour, is catered to. Consumers receive detailed information about the product they might purchase and as such can make an informed purchase. As it stands shared DLC has a positive impact on both appeal and effectiveness. Of the models analyzed this one is the most balanced.

Marketed DLC does not succeed in encouraging consumers to commit to additional purchases. The effectiveness in terms of sales is on the negative spectrum. Due to the post-acquisition dissonance purchase behaviour being present and more likely to occur the method does not benefit from an increase of effectiveness through this avenue. However, it does attempt to mitigate the post-acquisition dissonance state and thus manages to avoid the possible further decrease of effectiveness that comes with this behaviour. This would mean that while the behaviour is not affecting the delivery method at this point, it is not completely removed from that risk either. Taken all of this into account, the method still has a negative impact on both appeal and effectiveness. Compared to the other methods, this one is has the most negative impact.

Optional DLC appeals to consumers, the most out of the methods analyzed. However, it seems unable to fully capitalize on that in terms of effectiveness. Due to the variety oriented purchase behaviour being present and catered to, consumers are appealed to and purchases are further encouraged. Optional DLC has a positive impact on appeal with no impact on effectiveness.

In conclusion, having looked at results and creating our analysis, we have determined that the impact on appeal and effectiveness is quite significant in all methods. This is apparent though, in different ways. More restrictive and marketing focused techniques have shown to have a lower appeal and effectiveness. When players are given the option, it seems as though the appeal is significant, however, it shows little in terms of effectiveness. If the players are given the option to allow other players to partake and share content, it is shown they have a noticeable impact on both appeal, and effectiveness.
References

Literature


Games

Bohemia Interactive 2013, Arma 3, video game, Microsoft Windows, OS X, Linux, Bohemia Interactive, Czech Republic
EA Black Box 2010, *Skate 3*, video game, Microsoft Windows, Playstation 4, Xbox One, Electronic Arts, Canada

Firaxis Games 2010, *Sid Meier's Civilization 5*, video game, Microsoft Windows, OS X, Linux, 2K Games, United States of America


Appendix

Appendix A, Websites on which surveys were posted

Sid Meier's Civilization V
https://forums.2k.com/forumdisplay.php?74-Civilization-V-General-Discussion
https://www.reddit.com/r/civ/comments/blr8aq/dlc_delivery_methods_in_games_civilization_v/
https://steamcommunity.com/app/8930/discussions/0/1651043320649032419/

Europa Universalis 4
https://steamcommunity.com/app/236850/discussions/0/1648791520835569208/

Arma 3
https://www.reddit.com/r/arma/comments/blr4ec/dlc_delivery_methods_in_games_arma_3
https://steamcommunity.com/app/107410/discussions/0/1648791520835579175/

Tom Clancy’s Rainbow Six: Siege
https://steamcommunity.com/app/359550/discussions/0/1648791520835578640/

Appendix B, Survey questions

Appendix B.1 Sid Meier's Civilization V
Q: Do you play Civilization V in multiplayer?
A: Yes
A: No

Q: Do you own DLC for Civilization V?
A: Yes
A: No

Q: At what point since a DLC released are you most likely to purchase it?
Appendix B.2 Europa Universalis IV

Q: Do you play Europa Universalis IV in Multiplayer?
A: Yes
A: No

Q: Do you own DLC for Europa Universalis IV?
A: Yes
A: No

Q: At what point since a DLC released are you most likely to purchase it?
A: When it is released
A: When it goes on sale
A: Purchased it after I played with a friend that owned that DLC.

Q: What is the main reason you purchase DLC?
A: It is on sale.
A: To support the game.
A: Purchased it because I played with a friend that owned that DLC.
A: To complete my DLC collection for the game.
A: Interesting content.
A: Reviews
A: Other

Q: How do you feel about Europa Universalis IV’s option to share DLC between friends?
A: 1 to 10 scale. 1 Disapprove and 10 Approve

Q: How much more likely has experiencing DLC that your friends shared with you, convinced you to purchase those DLC?
A: 1 to 10 scale. 1 Not at all and 10 More likely

Q: Has experiencing DLC that your friends shared with made you more reluctant to play in singleplayer without said DLC?
A: Yes
A: No

Q: How do you feel about some added functionality for Europa Universalis IV being available only if you own the DLC it is in?
A: 1 to 10 scale. 1 Dislike it and 10 Like it

Q: Has experiencing the added functionality in a DLC that was shared with you made you more likely to purchase it?
A: 1 to 10 scale. 1 Not at all and 10 More likely

Q: Has the fact that some added functionality for Europa Universalis IV is available in DLC only deterred you from purchasing DLC for the game?
A: Yes
A: No

Q: Do you have any additional thoughts on the subject?
A: Write short paragraph

Appendix B.3 Arma 3

Q: Do you play Arma 3 in multiplayer?
A: Yes
A: No

Q: Do you own DLC for Arma 3?
A: Yes
A: No

Q: At what point since a DLC release are you most likely to purchase it?
A: When it is released
A: When is goes on sale
A: Needed to buy it to play on certain servers
A: Other

Q: What is the main reason you purchase DLC?
A: It’s on sale
To support the game
A: Was required on the server I play on
A: To complete my DLC collection for the game
A: Interesting Content
A: Reviews
A: Other

Q: Have you ever been left out of a game because you have not purchased DLC?
A: Yes
A: No

Q: How do you feel about not being able to join a game because you don't have the DLC for that server?
A: 1 to 10 scale. 1 Not at all and 10 More likely

Q: Have you ever been able to use a DLC weapon before?
A: Yes
A: No

Q: How do you feel about the watermarks when using DLC weapons or vehicles?
A: 1 to 10 scale. 1 Not at all and 10 More likely

Q: Has the watermark ever gotten in the way of you playing?
A: Yes
A: No

Q: Have you ever purchased DLC because of the watermarks on your screen?
A: Yes
A: No

Q: How do you feel about having watermarks on your screen as compensation for not owning the DLC?
A: 1 to 10 scale. 1 Not at all and 10 More likely

Q: Do you have any additional thoughts on the subject?
A: Write short paragraph

Appendix B.4 Tom Clancy's Rainbow Six Siege

Q: How many Year Passes have you bought in Tom Clancy's Rainbow Six Siege?
A: None
A: One
A: Two
A: Three
A: Four

Q: Do you feel that the benefits of the Year Pass were worth it?
A: Yes
A: No

Q: What is your reasoning behind purchasing Year Passes?
A: I want to support the game
A: I want to get the new operators early
A: I do it to avoid unlocking operators
A: I do it for the additional content in the Year Pass
A: I don't have time to unlock all operators
A: Other

Q: What is your reasoning for not purchasing Year Passes?
A: Cannot afford it
A: Content does not warrant the price
A: Do not mind unlocking operators
A: Other
Q: Do you feel that it is challenging to earn renown while playing the game?
A: Yes
A: No

Q: Do you feel like you need to purchase Year Passes?
A: Yes
A: No

Q: What is your main reasoning for purchasing cosmetic items or premium credits?
A: I want to support the game
A: I see something I like
A: I don't buy cosmetic items or premium credits
A: Other

Q: What is the main way you get new operators?
A: Year Pass
A: Through ingame renown

**Appendix C, Survey results in charts format**

*Sid Meier's Civilization V*

Do you play Civilization V in multiplayer?

35 responses

![Pie chart showing 100% response for Yes]
Do you own DLC for Civilization V?
35 responses

- Yes: 97.1%
- No: 2.9%

At what point since a DLC released are you most likely to purchase it?
35 responses

- When it is released: 51.4%
- When it goes on sale: 20%
- Needed to buy it to play with a friend: 11.4%
- Dunno: 7.1%
- All three happened, generally when in a Civ mood I'll buy it otherwise wait for sales / friends for motivation: 4.3%
- For me, it's more about what the DLC contains. Unless it's genuinely interesting to me, I won't buy it even: 2.9%

What is the main reason you purchase DLC?
35 responses

- It is on sale: 62.9%
- To support the game: 17.1%
- Need it in order to play with a friend: 11.4%
- To complete my DLC collection for the game: 11.4%
- Interesting content: 7.1%
- Reviews: 2.9%
How do you feel about the requirement for all players to own the same DLC in Civilization V in order to play together?

35 responses

Has a friend lacking any DLC ever prevented you from playing a game with them?

35 responses
How do you feel about the requirement for all players to own the same DLC in Civilization V in order to play together?

35 responses

- 7 (20%)
- 5 (14.3%)
- 8 (22.9%)
- 0 (0%)
- 6 (17.1%)
- 3 (8.6%)
- 2 (5.7%)
- 0 (0%)
- 4 (11.4%)

Has the requirement for all players to own the same DLC deterred you from purchasing additional DLC for the game?

35 responses

- 57.1% Yes
- 42.9% No
**Europa Universalis IV**

**Do you play Europa Universalis IV in Multiplayer?**
64 responses

- Yes: 100%
- No: 0%

**Do you own DLC for Europa Universalis IV?**
64 responses

- Yes: 93.8%
- No: 6.2%

**At what point since a DLC released are you most likely to purchase it?**
64 responses

- When it is released: 62.5%
- When it goes on sale: 28.1%
- Purchased it after I played with a friend that owned that DLC: 5.4%
- Depending on the content of the DLC, either when it's released or later on: 4.7%
- Buy it at reduced price on instant game: 3.1%
- Pirate it m8: 1.5%
- The Expansions are feeling less like expansions: 1.5%
- Just some time after release when I…: 1.5%
What is the main reason you purchase DLC?
64 responses

![Pie chart showing the reasons for purchasing DLC. The reasons are:
- It is on sale: 45.3%
- To support the game: 15.6%
- Purchased it because I played with: 15.6%
- I purchased so that my friends and I...: 9.4%
- To complete my DLC collection for: 7.3%
- Interesting content: 6.3%
- Reviews: 4.7%
- To access needed features: 4.7%]

How do you feel about Europa Universalis IV's option for the host of a game to share DLC?
64 responses

![Bar chart showing the distribution of responses to the question. The highest response is 52 (81.3%).]

How much more likely has experiencing DLC, that your friends shared with you, convinced you to purchase those DLC?

64 responses

Has experiencing DLC that your friends shared with you, made you more reluctant to play in singleplayer without said DLC?

64 responses
How do you feel about some added functionality for Europa Universalis IV being available only if you own the DLC it is in?

64 responses

Has experiencing the added functionality in a DLC that was shared with you made you more likely to purchase it?

64 responses
Has the fact that some added functionality for Europa Universalis IV is available in DLC only, deterred you from purchasing DLC for the game?
64 responses

Arma 3

Do you play Arma 3 in multiplayer?
199 responses

Do you own DLC for Arma 3?
199 responses
At what point since a DLC release are you most likely to purchase it?
199 responses

- 36.2% When it is released
- 47.2% When goes on sale
- 8.5% Needed to buy it to play on certain servers
- 5.0% Depends on the DLC and reviews of the game
- 2.6% When its released it has a sale, I go for it
- 1.0% 1 and 2
- 0.5% When as a community we decide whether or not to purchase
- 0.5% When I want to first play with provided content

What is the main reason you purchase DLC?
199 responses

- 54.3% Its on sale
- 20.1% To support the game
- 8.5% Was required on the server I play on
- 5.0% To complete my DLC collection for the game
- 2.6% Interesting Content
- 2.0% Reviews
- 1.0% Intereting Content
- 1.0% To Support game, To complete DLC

Have you ever been left out of a game because you have not purchased DLC?
199 responses

- 65.3% Yes
- 34.7% No
How do you feel about not being able to join a game because you don't have the DLC for that server?

199 responses

Have you ever been able to use a DLC weapon before?

199 responses
How do you feel about the WaterMarks when using DLC weapons or vehicles?
199 responses

Has the watermark ever gotten in the way of you playing?
199 responses

Have you ever purchased DLC because of the WaterMarks on your screen?
199 responses
**Tom Clancy’s Rainbow Six: Siege**

**How many Year Passes have you bought in Tom Clancy's Rainbow Six Siege?**

- 58 responses

![Pie chart showing the distribution of year passes bought by players.](chart.png)
Do you feel that the benefits of the Year Pass were worth it?
58 responses

- Yes: 69%
- No: 31%

What is your reasoning behind purchasing Year Passes?
45 responses

- I want to support the game: 17.8%
- I want to get the new operators early: 17.8%
- I do it to avoid unlocking operators: 20%
- I do it for the additional content in the Year Pass: 13.3%
- I don't have time to unlock all operators: 15.6%
- Didn't buy, prefer to grind for operators: 13.3%
- I like the grind to unlock Operators: 26.7%
- I don't: 33.3%

What is your reasoning for not purchasing Year Passes?
45 responses

- Cannot afford it: 33.3%
- Content does not warrant the price: 13.3%
- Do not mind unlocking operators: 26.7%
- Can't afford it: 26.7%
- Content doesn't warrant the price: 33.3%
- Price is a bit too high for every year: 17.8%
- Do not like ongoing costs for a game: 13.3%
- None: 13.3%
Do you feel that it is challenging to earn renown while playing the game?
58 responses

- Yes: 32.8%
- No: 67.2%

Do you feel like you need to purchase Year Passes?
58 responses

- Yes: 17.2%
- No: 82.8%

What is your main reasoning for purchasing cosmetic items or premium credits?
58 responses

- I want to support the game: 63.8%
- I see something I like: 25.9%
- I don't buy cosmetic items or premium credits: 5.6%
- To save time: 1.7%
- I like it and I want to support the game: 0.8%
Appendix D, List of all the DLC Available and Unexamined Types of DLC

Appendix D.1 Sid Meier’s Civilization V

Map Packs
- Cradle of Civilization Map Pack: Mediterranean
- Cradle of Civilization Map Pack: Asia
- Cradle of Civilization Map Pack: Americas
- Cradle of Civilization Map Pack: Mesopotamia
- Explorer’s Map Pack
- Scrambled Continents Map Pack
- Scrambled Nations Map Pack

Scenario Packs
Scenario Packs comprise scenarios based on certain events and points of interest in history such as the history surrounding the Korean peninsula during the first half of the 14th century. They are generally sold together with Civilization Packs, which are explained in the next section. Since Scenario Packs are not available for multiplayer in the standard version of the game unless a modification made by players is used. We do not cover how they would affect consumers in their purchase behaviour.

- Civilization V - Civ and Scenario Double Pack: Spain and Inca
- Civilization V - Civ and Scenario Pack: Polynesia
- Civilization V - Civ and Scenario Pack: Denmark (The Vikings)
- Civilization V - Civ and Scenario Pack: Korea
- Civilization V - Scenario Pack: Wonders of the Ancient World

Civilization Packs
- Civilization V - Babylon (Nebuchadnezzar II)
- Civilization V - Civ and Scenario Double Pack: Spain and Inca
- Civilization V - Civ and Scenario Pack: Polynesia
Civilization V - Civ and Scenario Pack: Denmark (The Vikings)
Civilization V - Civ and Scenario Pack: Korea

Expansions
Civilization V - Brave New World
Sid Meier's Civilization V: Gods and Kings

Appendix D.2 Europa Universalis IV

Immersion Packs

Immersion Pack - Europa Universalis IV: Third Rome
Immersion Pack - Europa Universalis IV: Rule Britannia
Immersion Pack - Europa Universalis IV: Golden Century

Expansions

Expansion - Europa Universalis IV: Conquest of Paradise
Expansion - Europa Universalis IV: Wealth of Nations
Expansion - Europa Universalis IV: Res Publica
Expansion - Europa Universalis IV: Art of War
Expansion - Europa Universalis IV: El Dorado
Expansion - Europa Universalis IV: Common Sense
Expansion - Europa Universalis IV: The Cossacks
Expansion - Europa Universalis IV: Mare Nostrum
Expansion - Europa Universalis IV: Rights of Man
Expansion - Europa Universalis IV: Mandate of Heaven
Expansion - Europa Universalis IV: Cradle of Civilization
Expansion - Europa Universalis IV: Dharma
Europa Universalis IV: Call-to-Arms Pack
Europa Universalis IV: Digital Extreme Edition Upgrade Pack
Europa Universalis IV: Pre-Order Pack
Europa Universalis IV: American Dream
Europa Universalis IV: National Monuments II
Europa Universalis IV: Muslim Advisor Portraits

Content Packs

Content packs are comprised of cosmetics. They are generally limited to cosmetic upgrades for the game and with the exception of events, which have a limited effect on gameplay in terms of offering minor bonuses based on choices, do not have a direct effect on gameplay. Due to the lack of effect Content Packs have on gameplay and due to them not being shareable in multiplayer games, we will not cover how they would affect consumer purchase behaviour.

Content Pack - Europa Universalis IV: El Dorado
Content Pack - Europa Universalis IV: Common Sense
Content Pack - Europa Universalis IV: The Cossacks
Content Pack - Europa Universalis IV: Mare Nostrum
Content Pack - Europa Universalis IV: Rights of Man
Content Pack - Europa Universalis IV: Mandate of Heaven
Content Pack - Europa Universalis IV: Cradle of Civilization
**Content Pack - Europa Universalis IV: Dharma**

**Unit Packs**

Unit packs contain various themed unit models for the countries that can be played in the game. They are completely cosmetic and have no effect on gameplay. Because Unit Packs have no gameplay effect and cannot be shared by the host in a multiplayer game, we will not delve into how they would influence consumers in their purchase decisions.

*Europa Universalis IV: Conquistadors Unit pack*
*Europa Universalis IV: Native Americans Unit Pack*
*Europa Universalis IV: Colonial British and French Unit pack*
*Europa Universalis IV: Native Americans II Unit Pack*
*Europa Universalis IV: Muslim Ships Unit Pack*
*Europa Universalis IV: Trade Nations Unit Pack*
*Europa Universalis IV: Indian Ships Unit Pack*
*Europa Universalis IV: Indian Subcontinent Unit Pack*
*Europa Universalis IV: Catholic League Unit Pack*
*Europa Universalis IV: Evangelical Union Unit Pack*

**E-Books**

E-Books for *Europa Universalis IV* are alternate history stories based on the game. They are external to the game and have no effect on it. As a result of E-Books being external to the game and unshareable, we will not cover how they affect consumers when making a purchase decision.

*Europa Universalis IV: Anthology of Alternate History*
*Europa Universalis IV: Wealth of Nations E-Book*
*Europa Universalis IV: Art of War E-Book*
*Europa Universalis IV: Common Sense E-Book*

**Music**

Additional music for *Europa Universalis IV* can be acquired in the form of themed soundtracks. As the music DLC does not directly affect gameplay and cannot be shared in multiplayer matches, we will not look into what effect they have on consumers when they want to make a purchase.

*Europa Universalis IV: Songs of the New World*
*Europa Universalis IV: Republican Music Pack*
*Europa Universalis IV: Guns, Drums and Steel Music Pack*
*Europa Universalis IV: Songs of War Music Pack*
*Europa Universalis IV: Guns, Drums and Steel Volume 2 Music Pack*
*Europa Universalis IV: Sounds from the community - Kairis Soundtrack*
*Europa Universalis IV: Sabaton Soundtrack*
*Europa Universalis IV: Sounds from the community - Kairis Soundtrack Part II*
*Europa Universalis IV: Fredman's Epistles*
*Europa Universalis IV: Songs of Regency*
*Music - Europa Universalis IV: The Rus Awakening*
Free

Some DLC for Europa Universalis can be downloaded for free and come in the form of music or unit packs. Free DLC are available to all owners of the base game and are cosmetic in nature, thus not having a direct effect on gameplay. We will not cover how they would affect consumer purchase behaviour.

*Europa Universalis IV: Songs of Yuletide*
*Europa Universalis IV: Catholic Majors Unit Pack*
*Europa Universalis IV: Evangelical Majors Unit Pack*

**Appendix D.3 Arma 3**

**Content Packs**

*Arma 3 Karts*
*Arma 3 Helicopter*
*Arma 3 Marksmen*
*Arma 3 Jets*
*Arma 3 Tanks*

**Mission Packs**

*Arma 3 Tac-ops missions*

**Map Packs**

Map packs are maps for the players to play on. There was only one dedicated map pack released and it was released as a free DLC. Due to the DLC being available to all, we will not cover how it affects consumer attitudes towards the delivery method.

**Arma 3 Malden**

**Expansions**

*Arma 3 Apex*
*Arma 3 Laws of War*

**Appendix D.4 Tom Clancy’s Rainbow Six: Siege**

**Cosmetic Packs**

*Tom Clancy’s Rainbow Six: Siege - The Safari Bundle*
*Tom Clancy’s Rainbow Six: Siege - Emerald Weapon Skin*
*Tom Clancy’s Rainbow Six: Siege - Cobalt Weapon Skin*
*Tom Clancy’s Rainbow Six: Siege - Platinum Weapon Skin*
*Tom Clancy’s Rainbow Six: Siege - Amethyst Weapon Skin*
*Tom Clancy’s Rainbow Six: Siege - Topaz Weapon Skin*
*Tom Clancy’s Rainbow Six: Siege - Cyan Weapon Skin*
*Tom Clancy’s Rainbow Six: Siege - Montagne Bushido Set*
*Tom Clancy’s Rainbow Six: Siege - Ruby Weapon Skin*
*Tom Clancy’s Rainbow Six: Siege - Blitz Bushido Set*
*Tom Clancy’s Rainbow Six: Siege - Tachanka Bushido Set*
Tom Clancy’s Rainbow Six: Siege - Smoke Bushido Set
Tom Clancy’s Rainbow Six: Siege - Pulse Bushido Set
Tom Clancy’s Rainbow Six: Siege - Pro League Clash Set
Tom Clancy’s Rainbow Six: Siege - Pro League Kaid Set
Tom Clancy’s Rainbow Six: Siege - Pro League Nomad Set
Tom Clancy’s Rainbow Six: Siege - Pro League Maverick Set

Year Passes

Tom Clancy’s Rainbow Six: Siege - Year 1 Pass
Tom Clancy’s Rainbow Six: Siege - Year 2 Pass
Tom Clancy’s Rainbow Six: Siege - Year 3 Pass
Tom Clancy’s Rainbow Six: Siege - Year 4 Pass