VIDEO GAMES AND TOURISM

TOURISM MOTIVATIONS OF CHINESE VIDEO GAME PLAYERS

BY

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Abstract

This thesis discusses the impact of video games on the tourism motivation of Chinese video game players, focusing on the Assassin's Creed series of games. Four research questions are considered: What is the difference between the travelers' tourism motivations and non-travelers' tourism motivations in Chinese Assassin's Creed players in terms of push and pull factors? What is the relationship between demographic characteristics and tourism motivations? Do gamer typologies have impact on Chinese Assassin's Creed players' tourism motivations? What impact does time and frequencies of playing Assassin's Creed have on players' tourism motivations in terms of push and pull factors?

The review of literature focuses on video game players, video games and tourism, popular culture tourism and tourism motivation. The thesis identifies gaps in knowledge about the tourism motivations of Chinese video game players, and the relationship between tourism motivations and player typologies and participation in the game (time and frequency). As non-travelers are included in the data collection, it is found that the tourism motivation of non-travelers is also a knowledge gap through reviewing literature.

Motivational push and pull factors as the theoretical basis of this research and the study focuses on the Assassin's Creed games series. The study uses a quantitative method and collects data through an online survey of Chinese gamers recruited through three Assassin's Creed online communities. The first stage of data collection focused on those who had travelled to France, Italy or the UK, the locations appearing in four of the Assassin's Creed games. 29 useable responses were collected. The second stage broadened the sample to include those gamers who had not travelled to these places (termed non-travelers). This generated 131 useable responses, making 160 respondents in total.

For Chinese video game players, novelty was the most important push factor motivating travel to the Western European countries appearing in the Assassin's Creed games. The location attribute was the most important pull factor. There is no difference in the reported tourism motivation of travelers and non-travelers. Comparing tourism motivations by age, sociality and location attributes were not different, however, respondents aged 18 to 25 had higher importance in novelty and game-related push and pull tourism motivation factors than older gamers. There was no significant difference between male and female players' tourism push and pull motivations. Based on gaming motivation, the respondents are divided into two types: hardcore players (having multiple gaming motivations) and casual players (play games for passing time). Hardcore players give higher importance to tourism motivations than casual players. More-involved players give higher importance to tourism push motivations relating to video game than less-involved players. In popular culture tourism research, there are few explorations related to video games. The research on video games and tourism has mainly focused on the gamification of tourism marketing and travel experience. This thesis is one of a few studies of gamers and tourism. Thesis derived the new knowledge for understanding video gamers' tourism motivations.

Key words: video games, popular culture tourism, tourism motivation, push-pull factor, non-travelers

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1. Introduction

1.1 Background

The research investigates the relationship between video games and tourism motivations. The research problem focuses on the role of video games in tourism motivations. Video games have various functions in terms of skills, learning, social interaction, achievement, and challenge requirements are met (Vorlová, 2017). In the gaming industry, especially in the world of multiplayer online games, new economies and cultures are developing at a very fast rate (Wolf, 2017). In 2020, there were approximately 2.8 billion players worldwide (Clement, 2021). The large number of players has made video games form a worldwide new media, and their popularity has had a major impact on popular culture due to the increasing number of players. The game can be regarded as a virtual world, but it is sometimes compared with reality. Malaby (2007) notes that video games are good at simulating and constructing reality with a game structure, which can reveal the "entire human history" in the game to some extent. Video game is an entertaining model of people's psychological life, and it can release a unique atmosphere of tension without pressure. It is a popular art form with a specific collective (Stenros, 2017).

Popular culture tourism is travel based on popular culture, which is a collection of practices, beliefs, and objects that share broadly shared meaning, and it is seen as a series of practices by creators of art and other types of culture (Kidd, 2017). Popular culture is considered to be embodied in visual and auditory forms such as music, films, literature, TV programs, drama and animation (Lee & Bai, 2016). Popular culture is a culture that is generally liked and followed enthusiastically. Popular culture is universally available and a way of life that many people practice and follow (Xia, 2000). In tourism research, popular culture is often subdivided by form, such as film tourism, TV tourism, animation tourism and other forms of popular culture tourism.

Tourism motivation has been widely studied in tourism science. Tourism motivation determines why tourists go to tourist destinations or activities, and motivation is to drive individuals to act types or demand states that can meet their needs. There are various theories of tourism motivation and one which is widely cited is the push-pull theory. The push factor refers to the specific energy that influences people's travel decisions, and the pull factor refers to the person who chooses a particular destination (Klenosky, 2002). In tourism literature, various motivations can trigger various forms of tourism behavior (Fowler et al., 2012; Li & Cai, 2012). Studies of popular culture have shown that popular culture like films can motivate travel (Ng & Chan, 2020; Oviedo-García et al., 2016; Suni & Komppula, 2012). This research investigates whether a similar relationship exists between another form of popular culture - video games – and motivations to travel.

Video games, like films and TV series, show the content through the screen. With the development of more advanced technology and the appearance of various equipment, the boundary between video games and other forms of popular culture is gradually blurred. By playing games, players can meet their basic needs: get rewards through performance, improvement, and success. Video games play an important role in social problems, such as the educational value of games. Electronic games can reach most viewers through digital interactive media (Gripsrud, 2017; Rowsell et al., 2014). The possible relationship between video games and travel motivations will be investigated by focusing on one game – Assassin's Creed – which will be introduced in the next section.

1.2 Assassin's Creed

Assassin's Creed is an action-adventure game series where players play the role of the Brotherhood of Assassins to secretly assassinate historical targets. The main enemy of the Assassins is the Templars, who are trying to use an ancient spoil of war (the artifact

of Eden, a relic left after the destruction of the First Civilization) to control the world (Shaw, 2015). This series of game is an action-adventure game with high degree of freedom and delicate graphics as its biggest selling point. Game mechanism is known for climbing and jumping between buildings, sneaking, assassination, fighting and puzzle solving (Gilbert, 2017). The player brings a deep sense of substitution to the player by meeting important historical figures and experiencing historical events in the tasks in the game. The first game was released in 2007, and as of 2021, Assassin's Creed has released 24 games, set in various locations, such as Egypt, North America, and Europe. Figure 1 is a poster for the discovery of ancient Egypt.
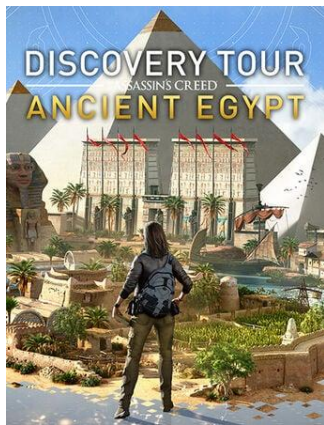
Figure 1.1 Discovery Tour Assassin's Creed Ancient Egypt

The slogan of Assassin's Creed is "History is our playground". Each game is full of historical locations (e.g., the Pantheon in Assassin's Creed Brotherhood), events (e.g., French Revolution in Assassin's Creed Unity) and characters (e.g., Leonardo da Vinci in Assassin's Creed II). This game provides players with a rich past world, and the materials and styles of the buildings reflect the period (see figure 1.2). Urban and rural layout also conforms to the place in reality. In addition, the humanities and culture are also in line with the style of the time, such as the dress of the characters. Famous landmarks in reality occupy prominent positions (Politopoulos et al., 2019). Therefore, Assassin's Creed is one of the best-selling game series today. In recent years, Ubisoft, the game company that publishes Assassin's Creed, has launched a journey of discovery, allowing players to explore the game environment at leisure and discover some historical buildings and characters.

Figure 1.2 Notre Dame de Paris in 1789 from Assassin's Creed Unity

Assassin's Creed is one of the best-selling game series today. Because the game is known in the world for its immersive depiction and rich history, it is considered to have the potential for history and tourism research. (Gilbert, 2019). Looking at a single game series enables the thesis to investigate the relationship between those playing that game (gamers) and motivations to travel to places depicted in those games. In the thesis, the focus is on four games (II, Brotherhood, Unity and Syndicate) which are each set in real places in Western Europe. The research also focuses on one nationality of gamers so that motivations to travel between that country (China) and Western Europe can be explored. The next section will introduce Chinese video gamers.

1.3 Chinese Video Game Players

The influence of Chinese tourists on international tourism and their high spending power have attracted wide attention, including studies on the motivation of Chinese tourists (Zhang & Peng, 2014). China is also the largest market for outbound tourism, accounting for 13% of global tourism revenue (Jiang, Scott, & Ding, 2019; Pung & Del Chiappa, 2018). The research object of this thesis is Chinese video game players, so the motivation of Chinese tourists is part of the literature field of tourism motivation that

this thesis focuses on. The research object of this thesis is Chinese video game players as tourists.

In 2016, the revenue of China's game market reached approximately 165.5 billion yuan, surpassing the United States to become the world's largest game market (Zhang, 2017). In 2017, China's video game market exceeded 200 billion yuan. Video games have become an important part of China's entertainment and pop culture industry (Wang, 2019).

Nowadays, video games are one of the most attractive entertainments. As of 2014, there are 517 million video game players in China, and the total market revenue is 18.5 billion U.S. dollars (Wang & Yu, 2016). The game platform Steam enables Chinese players to purchase and play games, including Assassin's Creed. China is an essential part of Ubisoft's global production line. The company established studios in Shanghai and Chengdu in 1996 and 2007, respectively. From the statistics of Steamspy (2017), a website that counts game sales and playtime, in terms of the geographic location where Assassin's Creed's new works were purchased in 2017, Chinese players accounted for the highest proportion (34%) followed by the United States (16%) and Germany(7%).

1.4 Knowledge Gaps Addressed

As outlined in the literature review knowledge gaps this research addresses are: the tourism motivations of Chinese video game players; whether video games motivate players to travel; the difference between travelers and non-travelers' tourism motivations among video game players; the influence of demographic characteristics of players, and what is the relationship is between players' participation in the game (time and frequency) and their tourism motivations.

1.5 Purpose and Research Problems & Questions

Video games are a form of the popular cultures, however, unlike other forms of popular culture, there is very little literature on video games and tourism motivation. This thesis studies video games and travel, especially related to tourism motivation. In addition, this thesis studies the tourism motivation of Chinese video game players, the push and pull factors in tourism motivation theory in video game travel, and the relationship between the player's demographic characteristics and tourism motivation. This thesis uses Assassin's Creed as a case, because there are real historical locations and characters in the game which may influence players' motivations to travel.

The research problem is: What role does the video game Assassin's Creed play in the tourist motivation of Chinese Assassin's Creed players? The research questions are:

1. What is the difference between the travelers' tourism motivations and non-travelers' tourism motivations in Chinese Assassin's Creed players in terms of push and pull factors?

2. Do gamer typologies have an impact on Chinese Assassin's Creed players' tourism motivations?

3. What impact does time and frequencies of playing Assassin's Creed have on players' tourism motivations in terms of push and pull factors?

4. What is the relationship between gamers' demographic characteristics and tourism motivations?

1.6 Methodology in Thesis

The research paradigm of the thesis is positivism, and the method is quantitative research. The research participants are Chinese video game players and data was collected through online questionnaires. Data analysis used principal component analysis, cluster analysis and independent sample t-tests.

1.7 Research Contributions

This thesis aims to make some contributions to tourism and video games. The research will demonstrate a relationship between motivations for playing video games and tourism motivations, with hardcore gamers and those playing more hours and regularly, having stronger tourism motivations than casual gamers and less-involved players. This thesis also demonstrates that in the case study of Assassin's Creed, the tourism motivation of travelers and non-travelers is similar. The above research has not been done in tourism studies based on Chinese video game players. Therefore, this research hopes to contribute to the academic field in the field of video games and tourism, especially the discovery of Chinese video game players.

1.8 Thesis Structure

Chapter 2 is a literature review, laying the theoretical foundation for this research. This part connects the research content and research questions related to this thesis and identifies the current knowledge gaps in tourism. The knowledge in this chapter, and the findings in other articles are used to develop the methodology which is outlined in Chapter 3. This chapter describes the research paradigm, research methods and data collection methods, including the questionnaire design, sample requirements, and the survey response. Data analysis is also discussed, as well as the advantages and limitations of this research.

The results of the research are presented in Chapter 4. This chapter introduces the demographic information of the participants and their motivations for playing games and traveling. The findings include the differences between the tourism motivation of tourists and non-tourists; the influence of demographic information on tourism motivation; whether game behavior affects tourism motivation and whether the frequencies and hours spent on playing games also affect tourism motivation.

Chapter 5 and Chapter 6 are discussion and conclusion respectively. The discussion summarized the findings of this study and previous studies. The conclusion is to summarize the research questions of the thesis, and contributions of research and limitations, as well as suggestions for further research.

2. Literature Review

2.1 Introduction

This thesis focuses on the tourism motivation s of Chinese video game players, and video game as a form of popular culture. The first part of this chapter is about video game players and various gaming motivations are reviewed. The second part is video games and tourism which discusses the connection between them from other readings. The third part is popular culture tourism, this part will discuss film tourism, TV drama tourism and anime tourism. The fourth part is tourist motivations which include general definitions. Since this thesis is related to video game players from China, the literature also explores Chinese tourists' motivations. The theory of tourism motivation the thesis uses is the push-pull factors. Tourism motivations of popular culture tourists are also mentioned in this section. The research questions of the thesis are developed, and the research gaps on video games are addressed in this chapter.

2.2 Video Game Players

At present, there are many different types of electronic games that are meeting the needs of different groups of players (Ma, 2016). Nowadays, video game is one form of popular culture, like popular culture such as films and TV series, there are different types of video games for different video game players. There are eight different type of video games (Ma, 2016; Wang, 2018) including action (suitable for players who like excitement), racing (suitable for players who like speed), puzzle (exercises for brain), sports game, role-playing (let players have various activities), simulation game (developing or building), nurturing game (cultivating something), and first-person shooting.

The different types of games can attract different players and various typologies of gamers have been developed. Björk and Juul (2012) point out that the player is the

structural role of the game system, various interactive elements, and can be controlled by many real people. Every player is unique in the game, and their motivations for playing the game are also different. Schuurman et al. (2008) note that there are four types of players with different causes and behaviours. Convinced gamers who think video games are part of life. Competitive gamers who play games to compete with others. Escapist gamers like to immerse themselves in the game, explore new worlds, and enjoy the game's freedom. Pastime gamers who believe playing games is an excellent way to spend their leisure time. Tuunanen and Hamari (2012) identify player's motivations: achievement (getting all the achievements in the game); social; fighter and enhancing skills in the game (aggressive gamers). Kahn et al. (2015) also explore the players' various motivations for playing games and add that escapist players like to do things that reality cannot do. Similarly, Nacke et al. (2014) introduce a player-type model called BrainHex. They proposed several player types, a searcher (exploring miracles or beautiful moments), survivors (stock after suffering), planners, the conqueror (enjoy the victory), the social gamer, and the winner (the game is 100% complete). Ferro et al. (2013) note that the dominant player requires visibility in social aspects and is confident and self-driven when playing games. Objectivists want to get rewards, achievements and accumulate knowledge to play. Humanists are more inclined to socialize in games. Curious users like to explore and try new things in the game and get in touch with the open world. Creators enjoy creating new things in the game through skills and practice.

Through the above research of different researchers, these articles all mention the characteristics of players and the motivation of playing games. Table 2.1 illustrates the same aspects from various readings. Three gaming motivations are common across most studies: exploring a new world and trying something new, improving skills, and competing with others. Interacting with friends and others were the most discussed, five studies. In addition, doing things that cannot do in reality and fighting motivations were identified by at least two studies, and Schuurman et al. (2008) also identify passing time.

Table 2.1 also links the gaming motivations to the type of gamers identified above. Explorer gamers are motivated by exploring a new world and trying something new. Aggressive gamers are motivated by improving skills. Escapist gamers' motivation is doing things that they cannot do in reality. Competitive gamers' motivation is competing with others. Socializer gamers are motivated by interacting with friends and others. Fighters like fighting and pass-time gamers' motivation is passing time.

Table 2.1 Gaming Motivations and Typologies of gamers

Gaming Motivations	Associated sources	Various Players	Sources
Exploring a new world and trying something new.	Schuurman, et al.(2008), Tuunanen, et al.(2012), Nacke, et al.(2014), Ferro, et al.(2013)	Explorer gamers	Tuunanen et al.(2012)
Improving skills.	Schuurman, et al.(2008), Tuunanen, et al.(2012), Ferro, et al.(2013), Kahn, et al. (2015)	Aggressive gamers	Tuunanen et al.(2012)
Doing things that cannot do in reality.	Schuurman, et al.(2008), Kahn, et al. (2015)	Escapist gamers	Kahn et al. (2015)
Compete with others	Schuurman, et al.(2008), Tuunanen, et al.(2012), Ferro, et al.(2013), Kahn, et al. (2015)	Competitive gamers	Schuurman et al.(2008)
Interacting with friends and others	Schuurman, et al.(2008), Tuunanen, et al.(2012), Nacke, et al.(2014), Ferro, et al.(2013), Kahn, et al. (2015).	Socializer gamers	Ferro et al.(2013)
Fighting/ Killing.	Tuunanen, et al.(2012), Ferro, et al.(2013)	Fighter gamers	Tuunanen, et al.(2012)
Passing the time.	Schuurman, et al.(2008)	Pass-time gamers	Schuurman et al.(2008)

The next part is to understand how video games and tourism promote each other from the previous literature.

2.3 Video Games and Tourism

Although not all video games are not related to the location in the display, some games allow players to explore places virtually. There are studies that find that people really associate the experience of the destination with the game. As the technology of video games advances, they are also produced with real locations, creating exquisite images of destinations and triggering tourism (Dubois & Gibbs, 2018; Dubois et al., 2020). This section discusses how video games and tourism can be linked, including gamification, travel marketing, enhancing the visitor experience, Loyalty and entertainment, and connection between games and tourism industry.

2.3.1 Gamification

As one of the media platforms, games, many industries, including tourism, have been attracted to promote themselves, and thus gamification has emerged. Deterding et al. (2011) explain that gamification applies game elements and game ideas to non-game fields. Seaborn and Fels (2015) add that gamification is used to describe two concepts. (1) Create or use games for non-entertaining background (industries without entertaining elements) and goals, and (2) Convert existing systems to games. Gamification is about attracting audiences and solving problems in non-gaming environments (Xu et al., 2017). However, gamification also has certain limitations in the tourism industry. Lent and Marciniak (2020) explain that the combination of game elements and design may not constitute a sound system, nor can it create an exciting and engaging travel experience. Game rewards can lead to the opposite result. Rewards are external motivations applied in the wrong way, and it is easy for players to think that the sole purpose of the game is to collect rewards. Besides, based on the nature of tourist motivations, gamification in the tourism environment needs further research.

2.3.2 Travel Marketing

There is some tourism literature focusing mainly on games and travel marketing. According to Sever et al. (2015)'s research, video games have become a valuable tool for online advertising activities by improving data-driven, customer loyalty, and other factors. The tourism industry uses games to promote destination images to attract more tourists to travel. Destination image is essential for tourism marketers because they need to differentiate from other competitors in the tourism market through using digital platforms such as social media (Yilmaz et al., 2009). Xu et al. (2013) state that video games can improve brand popularity and attract potential tourists for tourism marketing, and reality-based games provide hints and entertainment settings for potential tourists. Similarly, Games can build a community from which destinations can better understand customers and repair negative word of mouth, which may impact brand awareness. Game-related tourism can build brand awareness and loyalty (Xu et al., 2016).

Studies on how to motivate the tourism triggered by games to become a driving force to increase the conditions for people to be interested in tourism because of games (Dubois & Gibbs, 2018). Xu et al. (2017) mention that gamification is a popular and influential trend in the tourism industry. The mutual development of tourism and gamification allows tourists to have a unique and fresh experience, many tourism industries have gamified in marketing, sales and customer participation, and the experience of tourists.

2.3.3 Enhancing the Visitor Experience

Xu et al. (2017) describe that games allow visitors to enhance the experience, will enable them to enjoy fantasy, immersion, and entertainment, and increase their satisfaction. The environment stimulates tourists' stories in the video game to promote their emotions about traveling to destinations in reality (Bulencea & Egger, 2015). Xu et al. (2017) point that 3D technology is one of the leading technical tools in the game.

Virtual technology and augmented reality technology provide visitors with an immersive experience. The immersion of the game enhances the experience of visitors. Takatalo et al. (2010) express that immersion is an essential aspect of the gaming experience. The immersion of tourists in the destination can help them leave an unforgettable experience. By enhancing the surrounding environment, sounds, imaginative stories, game tasks, challenges, and achievements, players can let their senses blend into the challenge and immersion of imagination and improve their personal experience (Kim et al., 2012).

2.3.4 Loyalty and Entertainment

Gamification can also be related to tourist loyalty. Customer loyalty includes behavior, attitude, and integration. Gamification can improve loyalty by increasing fun and relevance. Plan, collaborate, share and bring players more interaction through challenges and achievements (Xu et al., 2017). On the other hand, Xu et al. (2013) indicate that prizes, rankings, sharing, and competition mechanisms can respond to tourists' behavior and psychology. Games can provide fun and entertainment for the tourism market. The games can bring enjoyable experiences to tourists through rewards, storytelling, entertainment, and other elements (Zichermann & Linder, 2010). Due to the development of gamification in the tourism industry, more joy and fun are added to attract more customers to participate.

2.3.5 Connections Between Games and Tourism Industry

There are also connections between gaming worlds and real places tourists may visit (Acir, 2019). According to (Acir, 2019)'s study, The vast majority of video games are based on virtual worlds, but they can also reproduce the real environment. At present, some video games have exciting travel cases, and they are world-famous travel game

series. For example, Assassin's Creed, Anno, Tom Clancy's The Division, etc., which provide players with opportunities to immerse themselves in the atmosphere of those historical sites, and it is a way to connect potential visitors to the site. Players can learn about history and landmarks in these games.

At present, the studies on tourism and video games mainly focus on cultural heritage, destination images, and tourism marketing (Cipolla-Ficarra et al., 2008; Dubois & Gibbs, 2018). Furthermore, Dubois and Gibbs (2018) mention that video games can be seen as the driving force of tourism. Their research focused on Assassin's Creed and investigated how the game is associated with tourist motives. They concluded that there are the three types of video-game tourists, serendipitous video game-induced tourists (tourists visit destinations appearing in the game by coincidence), general video game-induced tourists (Visitors do not think that the destination that appears in the game is not the main purpose, but they will still participate in related activities), and specific video game-induced tourists (Tourists actively look for places in the game). Video games are a part of popular media; the players are "particular" tourists (Dubois & Gibbs, 2018). Developing a marketing strategy can attract them because players tourists also need to consider the target market. However, Dubois and Gibbs (2018)'s research is one of a few studies to focus on the gaming and tourism motivations. There is a lack of research on the relationship between video games and tourism, and whether players can be motivated to travel as a result of playing a video game. It is not known how to shape the destination image and inspire players to travel when playing video games (Dubois & Gibbs, 2018; Dubois et al., 2020). Whether video games will give players the motivation to travel is a knowledge gap. However, there is research about films and TVs that trigger travel, and the next section will review these studies to what can be learnt above video games and tourism from other popular culture contexts.

2.4 Popular Culture Tourism

Popular culture tourism is one form of traveling to places featured in popular literature,

films, or any other forms of media. Lee and Bai (2016) express that popular cultures are considered mass-consumed cultures and are an effective means of attracting tourists to their destinations while promoting a positive image of the economy and destinations. Popular cultures are entertainment expressions such as music, films, literature, television shows, video games, and dramas. Lundberg and Lexhagen (2014) explain that pop culture tourism is driven by high demand and often has a strong emotional connection to visitors' destinations. The tourism industry inspired by popular culture can create a higher market penetration rate, stimulate interest, establish an image, and finally reach the destination. Therefore, the tourism industry is inspired by films can bring many benefits to the depicted location (Busby et al., 2013). In addition, film and TV series celebrities may be media-driven marketing tools that can help tourists promote destinations (Yen & Teng, 2015). These factors provide an opportunity for viewers to imagine what they might see, touch, feel, and think about in a particular destination (Crouch et al., 2005). Therefore, popular culture is widely regarded as a driving force to promote destinations and attract tourists.

There are various forms of popular culture in popular culture tourism. For example, the literature on film tourism may have some implications for the gaming world. Connell (2012) explains that film tourism is a tourism activity triggered by watching films. It is often referred to as cinematic tourism, where the film's location can be seen on the screen to attract and inspire tourists. Heitmann (2010) also points out that film-induced tourism is the reason for going to a destination or attraction because the destination is on the screen of a TV, video, or movie theater.

When it comes to films, TV drama series should also be discussed. Chang (2016) studies TV dramas, tourism motivation, and cultural participation. He believes that watching television takes longer than film so the audience can achieve immersion and fantasy to achieve the purpose of escape. This is an internal factor that can stimulate people's behavior. Kim et al. (2009) claim that the serialization of TV series, emotional

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participation, daily narrative, and inter-cultural discussions continue to attract audiences. The location depicted in the TV show can increase the audience's motivation to travel. Kim and Wang (2012) also assert that it can reproduce the surrounding environment and tourist experience related to scenic spots to attract potential movie audiences, stimulate emotional connection, and enhance the personal entertainment experience through TV series production. Iwashita (2008) mentions that people use TV drama as a medium to learn more about the destinations displayed on television and maintain an interest in them. The interest can be gained not only from previous visits but also through participation in films and television series. In short, the most significant impact of films and TV shows on the international tourism industry is to identify and create a purpose image, which leads to increased interest in destinations. Films and TV dramas are used as visual, verbal, and sensory stimulation to promote tourism and help people make travel decisions.

In addition to films and TV, cartoon anime also has similarities with video games, and they belong to electronic entertainment and popular culture. Bond (2018) analyzes that animation is the primary form of manga and uses all trademarks in Japanese animation programs and films, including bright colors, dramatic bread colors, and distinctive facial expressions. Like other forms of popular culture, animation has also spawned tourism. According to Okamoto (2015), anime tourism is the action of visiting any place related to anime or manga and real anime places featured in some anime. Oishi (2011) states that there are various forms of animation tourism. Anime pilgrimage (going to places that appear in anime and manga) has received more attention from tourism researchers.

For video games, their connection with tourism is like films, TV series and cartoons. Images are presented through equipment (e.g., screen), allowing people to be on the scene, reproducing the environment related to the scenic spot, inspiring emotional connections, and attracting potential crowds. Video games also have some elements

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similar to films. For example, films inspire people to travel through destinations that appear on the screen. More importantly, popular culture in many industries, including tourism, are willing to promote their products through video games. However, there is not much literature on video games and tourism, especially tourism motivation, which is an underestimated research on popular cultural tourism. The next part will be a literature review of tourism motivation, including definitions, Chinese tourists' motivations, and motivations for popular culture tourism.

2.5 Tourism Motivations

Tourism motivation is a well-researched area, and there are many ways to understand tourism motivation. Macionis (2004) believes that tourism motivation can be defined as "a meaningful mental state in which personal travel is properly arranged, and others can interpret it as an effective explanation for this decision." To better sell and promote travel services and attractions, travel marketers must understand the motivational factors that lead to travel decisions and consumption. According to Devesa et al. (2010) and Dann (2014)'s research, motivation is the basis to explain and predict all activities in tourism. It is a meta-concept that triggers different factors such as travel, destination, satisfaction, and pleasure.

Jang et al. (2009) focus on the impact of tourism motivation on the tourism market and point out that motivation is defined as internal and external states that guide various human behaviors and is also considered the driving force to meet people's physical health and psychological needs. In other words, human necessities lay the foundation for understanding tourism motivation and travelers. Dai (2006) explains that tourism motivation is an internal driving force, which can trigger a person's intention to travel and the psychological motivation to decide where to go and what kind of trip to take. Tourists' motives will be influenced by their personality, living habits, and past travel experiences, and their motives will change over time. Swarbrooke and Horner (2007), Yoo et al. (2018) and Pearce (1988) believe that people have more than one motive.

There are usually many motivations for planning a trip, but one motivation usually takes center stage while others can be achieved. Therefore, the psychological motivation of tourists is the driving force that dominates their tourism motivation.

Moscardo et al. (2001) suggest that tourism motivation can be used to explain why tourists choose specific travel destinations or activities. From a marketing perspective, tourism products can be designed, promoted, and sold as solutions to meet consumer needs. Zhang and Marcussen (2007) focus on tourism motivation, market segmentation, and marketing strategies from a dimensional perspective. They asserted that tourism motivation is a dimension composed of multiple motivations. Tourists usually have many different motivations to choose a destination. However, each country has different social, cultural, political, and religious environments that influence and shape individuals' thoughts, behaviors, and customs. In short, in addition to the psychological motivation described in the previous paragraph, external factors will also affect people's tourism motivation.

The classification of tourism motivation factors has also been mentioned in the previous literature. According to the studies of Swarbrooke and Horner (2007) and Kotler et al. (1997), they proposed that the factors of tourist behavior can be independent or combined and can be divided into two categories. One is the motivation that attracts a person to choose to travel to another place. The other is the motivation that motivates a person to decide to travel at a particular time. The second type is more complex which includes: psychological (relaxation, exercise, health, belief, attitude, and learning, etc.); Emotion (nostalgia, escape, fantasy, spiritual needs); Personal (visit relatives and friends, make new friends); Personal development (improving knowledge and learning new skills); Status (to show off, get a good chance); Culture (sightseeing, experiencing different cultures, value systems, etc.); Social factors (family, social class, group). Although there are many factors, depending on the type of tourists, they may have different factors that motivate them to travel. Mahika (2011) points out that tourists are

an entity that exists, and each person is different, so the motives of travel are also different. The most critical factors in determining an individual's motivation to travel are personality (adventure/security, confidence/cowardice); lifestyle (those who want to travel alone and those who wish to have a social circle while traveling); the past (nostalgia for specific destinations); opinions (critical comments about an event or place) and past experiences (good or bad experiences of a holiday). In short, there are many different categories of tourism motivation, including almost any tourist-related factor, such as psychological, lifestyle, personal, etc.

Tourism motivation is also related to demographics. Gong (2017) notes that due to the original nature of tourism motivation, the most significant factor affecting tourism motivation is the characteristics of tourists themselves, which mainly include gender, age, family, education, occupation, and cultural background. Similarly, Saayman and Saayman (2009) mention that socio-demographic factors will affect tourists' consumption decisions and tourism motivation. From Kara and Mkwizu (2020), demographic factors such as age and gender significantly impact tourism motivation. In the previous literature, there is a connection between demographic information and tourism motivation. However, there are currently few studies on video game tourism and tourism motivation, and there is no research on player demographic information and tourism motivation. The thesis also explores the relationship between demographic characteristics and tourism motivations. Next section reviews the motivations of Chinese tourists from other articles.

According to previous studies on tourism motivation, motivations are mainly derived from internal reasons, psychological activities, needs, external factors, and other conditions. In the current research and history of tourism motivation, to accurately classify human tourism motivation, various tourism motivation theories have been produced based on demand, psychology, internal factors, and external factors.

There are various theories of tourism motivation in the research of tourism motivation such as Abraham Maslow's hierarchy of human needs, Plog's psychographic tourist motivation model, Iso-Ahola's Motivation theory, and push-pull factors. These theories are common in tourism and are commonly cited by many studies. The thesis will adopt the push-pull factors theory.

The push-pull factor is one of the theories that have been paid attention to in research on tourism motivation. Xie (2005) reports in 1970, Gray proposed two driving forces of tourism: wandering and fetishism. He described wandering habits as an internal "push" factor. It encourages people to leave familiar environments and things and go abroad to visit foreign cultures and things. On the contrary, being obsessed with things is people's response to the "pull" element in some areas. This desire is based on objective existence, personal passion, exotic customs, customs and culture (Xie, 2005). The behavior of tourists is caused by the interaction of internal and external factors, especially the contradiction between the two.

The push-pull theory has been particularly associated with Dann (1977). Push is the essence of people's tourism motivation, the internal driving force of travel behavior, and pull represents the attractiveness of the destination, attracting those who decide to travel. Push-pull factor, which is the relationship between an individual's internal driving force and external factors. Klenosky (2002) also presents that in this framework, the driving factor refers to the specific energy that influences people's travel decisions, and the pulling factor refers to the person who chooses a particular destination. It refers to the power that influences decision-making. Iso-Ahola (1982) expresses the two forces that constitute push and pull into two powers of exploration and escape. From Iso-Ahola's point of view, human instinct and inherited instincts and desire for expansion are fundamental to the development of tourism, and the attraction and materiality of the external world are another force. The external world's existence can transform the behavioral motivation of adults.

First the push factors, Dann (1977) conceptualizes driving factors as motivational factors or needs due to motivational uncertainty or stimuli. It is used as a factor to stimulate or create a desire to travel. Prayag and Hosany (2014) pointed out that the driving factor is the fundamental factor that guides personal travel behavior. Iso-Ahola (1989) analyzes that determining the motivation factor is the center of travel, while escape and exploration are the two dimensions of tourist writing. They have a corresponding impact on people's travel behavior. Tourists can travel to escape daily life, obtain personal-psychological rewards and build friendships. Kim and Jogaratnam (2003) review other studies and mentioned that the standard drivers are novelty, social activity, and prestige. Botha et al. (1999) write that these intrinsic motivations include avoiding personal/social pressure, recognition/reputation, social interaction, self-esteem, learning/discovery, and staying away from the crowd. Chen and Chen (2015) increase the desire for social interaction, escape, adventure, relaxation and entertainment, and self-exploration, which are also driving factors. Murphy (1996) explains the classification based on domestic and foreign backpackers' motivation to go to the park and found that excitement and "gathering with locals" were the main motivations. He identified the following motivational factors: achievement, self-development, and stimulating pursuit. In summary, the push or driving motivational factors include escape, social activities, novelty, prestige, adventure, relaxation, entertainment, achievement, self-development, and the pursuit of excitement.

The pull motivations are composed of external factors. Prayag and Ryan (2011) write that the pull factor is measured by representing a series of destination attributes perceived by location. In Kozak (2002)'s view, pull factors are described as factors that affect when, where, and how people travel and are related to the destination's characteristics, attention, or attributes. Existing research confirms that sports facilities, convenience facilities and nightlife will affect people's choice of tourist destinations. Xu (2010) reviews and study previous studies and summarize various driving factors,

including natural and cultural environment, accommodation and transportation, infrastructure tourism, food and friendly people, recreational activities, historical heritage/culture, urban and ruralization, comfortable leisure, beach, low prices, and natural resources. In summary, the pulling factors are based on the attributes of the destination, and different characteristics may bring about various driving factors (Fakeye & Crompton, 1991; Jeong, 1997; Turnbull & Uysal, 1995). Table 2.2 illustrate various elements of push and pull factors from different readings.

There is also a relationship between push and pull factors. Uysal and Jurowski (1994) note that various push and pull factors should not be regarded as entirely independent of each other but should be fundamentally related. In particular, they pointed out that when internal factors push people to travel, the destination itself, an external force, simultaneously pulls these people to choose that specific destination. Dann (1981) points out that potential tourists may consider various pulling factors that fully correspond to motivational factors when deciding where to go. Klenosky (2002) writes that the push-pull coefficient is usually described as related to two independent decisions made at two different points in time. One decides whether to go, and the other determines where to go.

Table 2.2 Push and Pull factors

Push factors	Sources	Pull factors	Sources
Escape	Iso-Ahola (1989); Botha et al. (1999); Chen & Chen (2015)	Convenience facilities	Kozak (2002); Xu et al. (2010)
Exploration	Iso-Ahola (1989); Chen & Chen (2015)	Nightlife	Kozak (2002); Xu et al. (2010); Fakeye & Crompton, (1991)
Novelty	Kim et al. (2003)	Sports facilities	Kozak (2002)
Sociality	Kim et al. (2003); Botha et al. (1999); Chen & Chen (2015)	Accommodation and transportation	Xu et al. (2010); Fakeye & Crompton, (1991)
Reputation	Kim et al. (2003); Botha et al. (1999)	Pleasant natural and cultural environments	Xu et al. (2010); Fakeye & Crompton, (1991)
Avoiding personal/social pressure	Botha et al. (1999)	Infrastructure tourism	Xu et al. (2010); Fakeye & Crompton, (1991)
Self-esteem	Botha et al. (1999)	Food and friendly people	Xu et al. (2010); Fakeye & Crompton, (1991)
Learning/discovery	Botha et al. (1999); Loker-Murphy (1996)	Recreational activities	Xu et al. (2010); Fakeye & Crompton, (1991)
Adventure	Chen & Chen (2015)	Historical heritage/culture	Xu et al. (2010); Turnbull & Uysal, (1995)
Relaxation	Chen & Chen (2015)	Cities and Ruralization	Xu et al. (2010); Turnbull & Uysal, (1995)
Achievement	Loker-Murphy (1996)	Comfort and leisure	Xu et al. (2010) ;); Turnbull & Uysal, (1995)
Stimulating pursuit	Loker-Murphy (1996)	Beach	Xu et al. (2010) ;); Turnbull & Uysal, (1995)
		Low prices	Xu et al. (2010); Turnbull & Uysal, (1995)
		Nature resources	Xu et al. (2010); Turnbull & Uysal, (1995)

Push-pull factors theory is one of the leading theories for studying tourism motivation. Xu (2010) explains that it is used to study different countries, regions, or tourist attractions; to study tourists of a certain kind of special tourism, study overseas tourists to a certain tourist attraction, and study tourists from a specific country or region. Uysal et al. (2009) point out that push-pull factors allow researchers to provide information to tourism practitioners to understand destination attributes and important controllable

factors. Due to the tangible nature of pull factors, managers can develop convenience facilities to maintain the expected performance level.

The theory of the push-pull factor has limitations. Yiamjanya and Wongleedee (2014) remark that the location of data collection is not extensive, and the small sample size may not give specific conclusions. The different cultural customs in various regions make it difficult to unify the push and pull factors, which produces a variety of stimulation and pull elements adapted to the region's nature. Hsu and Huang (2008) express that pull factors do not play a role in motivation in many cases because they have some common travel explanations that should be learned from actual travel research. From a couple of previous readings (Guha, 2009; Lewis & D'Alessandro, 2019; Xu & Chan, 2016), some researchers do not simultaneously push factor and pull factor, but directly push factor as the motivation of tourism.

Compared with other theories, push-pull theory can study people's internal and psychological motivations and study external factors and how destination attributes can make people motivated. There are also articles on the image of destinations based on push-pull theory (Chon, 1990; Shen, 2007). Many studies on tourism motivation tend to push and pull factor theories (Jeong, 2014). This theory includes the internal (demand, mentality) factors mainly studied by other theories and focuses on being attracted by external factors after being internally promoted (Kim et al., 2007). Chen and Chen (2015) assert that the push-pull factor represents an effective and user-friendly method of testing motivation and is regarded as a demand and supply attribute in the decision-making process. Yousefi and Marzuki (2015) argue that push and pull factor theory is the basis for understanding travel behavior and explaining why people travel. The theory has been accepted as a practical framework for explaining tourism motivation and destination attributes.

2.5.1 Motivation for Popular Culture Tourism

This research uses push-pull theory to study the tourism motivation of video game players. Since there is almost no research literature on the motivations of game consumers, it is necessary to turn to the literature on the motivations of other content visitors (films, TV series, animes).

Macionis (2004) believes that researchers can study how the attractiveness of films interacts with driving factors (such as the desire for alternative experiences) to decide to go to a particular destination. From the perspective of pulling elements, Macionis (2004) distinguishes a) the location that points to the characteristics and attributes of the shooting location, such as beautiful scenery; b) points to the movie plot, theme, and type of performance; and c) the destination and the movie, the relationship between personality, role or role-playing celebrity and star. In terms of motivation for film tourism, Beeton (2010) advocates the following points to motivate the film to inspire visitors: They try to recreate the experience (and even emotions) found in the movie and enhance the story and fantasy. Status and celebrities also play a role from time to time. Oviedo-García et al. (2016) apply push-pull factor theory and use Seville as an example to study the motives of film tourism and find different motivations such as novelty, personalization, prestige, learning, iconic attractions, and authenticity. Besides, the historical sites and cultural factors appearing in the movie act as pull factors to make people have tourism motivation. From their research, it is also found that women and tourists over the age of 25 can be inspired by films to travel to Seville. Suni and Komppula (2012) use SF-Filmvillage as a case to study the travel motives of film tourists, and their leading theory is also based on push-pull factor theory. They divide tourists into five categories: controller, indifference, nostalgia, seeking comfort, and pursuing novelty, and found that control, novelty, relaxation, and nostalgia were the main motivations of film tourists. They find that gender and age have significant differences in tourism motivation. Güzel and Güzel (2017) study the influence of film on the destination image and find that regions, shopping facilities, culture and climate,

activities, natural environment, and natural beauty are the elements in the tourist's motivations. They all use push-pull factors as the theoretical basis of their research. Rewtrakunphaiboon (2020) claims that according to previous studies, the time and frequencies of films watched are related to the degree of emotional participation in the film, and there is a difference between the number of people who watch films frequently and those who never watch films.

Gjorgievski and Melles Trpkova (2012) explain that TV series affect viewers' motivations to travel in three ways: image formation, improvement of information and knowledge, and creation of expectations, but on the contrary, they have a push-pull element, and this factor is related to TV series tourism because the push factor can motivate viewers to make travel decisions. Personal attributes include prestige, relaxation, and romance, escape local experience, educational function, and self-improvement, seeking more relevant experiences and self-improvement, new things, nostalgia, and alternative travel experiences brought by films. Ng and Chan (2020) investigate the influence of Korean dramas on Hong Kong youth and find those motivational elements that are more related to self attributes, such as nostalgic memories, self-searching, alternative experiences of TV series characters, TV series plots and character fantasy, romance and relaxation, self-improvement, and escape from reality through inner ideas and outer attributes. Therefore, this factor is called the push factor of tourists caused by TV dramas. Pull factors from their studies are that reputation and self-differentiation brought by the visit, the new experience of the filming location, the experience of the physical attributes of the TV drama destination, and the knowledge of the destination obtained through tourism.

Motivation also exists in animation tourism, just like in movie and TV drama tourism. Kasai and Hsu (2012) state that cartoon animation can provide information about the place. Although the information may change, the credibility will also be reduced, but the distorted information may enhance the destination image and make people have the motivation to travel. Kirillova et al. (2019) conclude from factor analysis that the three

push forces for animation consumers to participate in tourism are: (1) fuzzy reality and fantasy; (2) social belonging; (3) self-development. Animation tourists have a spiritual/pilgrimage motivation (to express their love for specific animation works by the pilgrimage to the destination) and social stimulation. Liu et al. (2020) use Chinese animation tourists as samples to conduct research and used a hybrid method to establish a reliable 5D animation tourist motivation scale. The five motivational factors seek credibility, novelty, escape/relaxation, social interaction, and cultural exploration of animation.

The above readings show that the push-pull theory has been widely used in the study of film and TV tourism motivation. Not only from the audience's inner motivation after watching the movie or TV series but also from the shooting scene, plot, and other external factors generated by the tourism motivation. Video games are the same popular culture as films, and push-pull theory can also study video game players' various internal and external tourist motivations. Table 2.3 demonstrates the theoretical factors of push and pull motivation shared by popular culture tourism and general tourism from different readings. Among push factors, escape, exploration, novelty, social interaction, reputation, learning, relaxation, and pursuit of excitement all belong to popular culture tourism and general tourism. In addition, among the pull factors natural and cultural environment, infrastructure, recreational activities, historical sites and culture, and comfort are part of popular cultural tourism motivation.

Table 2.3 Popular culture tourism motivations in push & pull factors

PUSH FACTORS	Tourism Studies	Popular culture tourists	Popular culture tourism studies	PULL FACTORS	Tourism Studies	Popular culture tourists	Popular culture tourism studies
Escape	Iso-Ahola (1989); Botha et al. (1999); Chen & Chen (2015)	√	Liu et al. (2020); Ng and Chan (2020); Kirillova et al. (2019)	Convenience facilities	Kozak (2002); Xu et al. (2010)		
Exploration	Iso-Ahola (1989); Chen & Chen (2015)	√	Liu et al. (2020)	Nightlife	Kozak (2002); Xu et al. (2010); Fakeye & Crompton, (1991)		
Novelty	Kim et al. (2003)	√	Suni and Komppula (2012); Liu et al. (2020); Suni and Komppula (2012)	Sports facilities	Kozak (2002)		
Sociality	Kim et al. (2003); Botha et al. (1999); Chen & Chen (2015)	√	Liu et al. (2020)	Accommodation and transportation	Xu et al. (2010); Fakeye & Crompton, (1991)		
Reputation	Kim et al. (2003); Botha et al. (1999)	√	Beeton (2010); Oviedo-García et al. (2016); Gjorgievski and Melles Trpkova (2012)	Pleasant natural and cultural environments	Xu et al. (2010); Fakeye & Crompton, (1991)	√	Güzel and Güzel (2017)

Avoiding personal/social pressure	Botha et al. (1999)			Infrastructure tourism	Xu et al. (2010); Fakeye & Crompton, (1991)	√	Güzel and Güzel (2017)
Self-esteem	Botha et al. (1999)			Food and friendly people	Xu et al. (2010); Fakeye & Crompton, (1991)		
Learning/discovery	Botha et al. (1999); Loker-Murphy (1996)	√	Oviedo-García et al. (2016)	Recreational activities	Xu et al. (2010); Fakeye & Crompton, (1991)	√	Beeton (2010)
Adventure	Chen & Chen (2015)			Historical heritage/culture	Xu et al. (2010); Turnbull & Uysal, (1995)	√	Oviedo-García et al. (2016)
Relaxation	Chen & Chen (2015)	√	Liu et al. (2020); Gjorgievski and Melles Trpkova (2012)	Cities and Ruralization	Xu et al. (2010); Turnbull & Uysal, (1995)		
Achievement	Loker-Murphy (1996)			Comfort and leisure	Xu et al. (2010); Turnbull & Uysal, (1995)	√	Suni and Komppula (2012)
Stimulating pursuit	Loker-Murphy (1996)	√	Kirillova et al. (2019); Ng and Chan (2020)	Beach	Xu et al. (2010); Turnbull & Uysal, (1995)		
				Low prices	Xu et al. (2010); Turnbull & Uysal, (1995)		
				Nature resources	Xu et al. (2010); Turnbull & Uysal, (1995)		

The push-pull theory was chosen as the theoretical basis for the research because it has been used in previous popular culture studies (e.g., films, TV series). (Macionis, 2004) uses push-pull factors to study the motivation of film tourism. Push-pull factors have also been used in the literature on tourism motivations in TV dramas (Hill, 2016). Therefore, whether push-pull theory can also be used for tourism motivation from video games is worthy of attention.

There is a study on participation and tourism motivation in the TV drama tourism motivation (Chang, 2016; Rewtrakunphaiboon, 2020). Games and TV dramas are the same popular culture. In the case of less research on game tourism motivation, this thesis seeks to find out the relationship between time and frequencies of playing video games and tourism motivations.

2.5.2 Chinese Tourist Motivations

It is known from previous literature that people's travel motives are also related to culture and country. Tourists from different countries have different travel motives such as escaping from reality (Jönsson & Devonish, 2008; Maoz, 2007). Since this research will focus on participants based in China, it is necessary to review research on tourism motivations of Chinese tourists. Jiang, Scott, Tao, et al. (2019) identify three important tourism themes through surveys in three cities in China: self-enhancement, nurturing the soul, and harmonious relationship.

In another study, Hsu et al. (2010) establish a set of tourism motivation models for Chinese tourists by focusing on expectations, motivations, and attitudes. They mention that Chinese tourists are motivated to come into contact with different and novel things, to understand history and culture, to see scenery that has not been seen before, and to feel the differences in life. These also give tourists a pursuit of relaxation, novelty, and learning. Jiang et al. (2015) found two categories in the motivations of Chinese tourists. One is to enjoy relaxing in nature, visiting historical and cultural attractions, and

enjoying what tourists like. Seeking diversity, relaxation, and getting rid of regular life are also basic tourism motives considered by Chinese tourists. The second group is to experience cultural differences, such as local culture, customs, and art. Through learning knowledge, tourists can enrich themselves and broaden their horizons. To complete self-realization and self-improvement during travel and realize the wish of "I have been here." Travel is regarded as the best opportunity to increase knowledge and experience (Yang, 2008). Like other studies, Tawil and Al Tamimi (2013) prove that Chinese tourists are motivated to explore new things and new knowledge, rest, relax prestige, and self-improvement. Weather, safety, cleanliness, cultural and historical attractions, travel arrangements, and convenience are also part of their motivation to travel.

In the current research, the study will focus on Chinese gamers' motivations to travel to three European countries, and there are a few studies of Chinese tourists' motivation to Europe that can provide insight. Pung and Del Chiappa (2018) find out that although China has a long history and cultural assets, Chinese tourists are very willing to see many historical landmarks and scenery from Europe. Food as one of the cultural carriers is also regarded as one of the motivations. In addition, relaxation and new experiences are also motivations. Visiting exotic customs different from China will make visitors feel fresh and novel. Another unique reach shows that the travel motives of people traveling to European countries can be divided into three types. Prayag et al. (2015) explain that restricted travelers value nature and cultural learning and relaxation. Group travelers like to travel with family, friends, and partners, enjoy a social atmosphere, and motivate transportation. Independent travelers have nature and cultural studies, relaxation and shopping, but self-actualization and socialization are their main motivations.

Chinese tourism motivations relate to the more general tourism motivations which are explored in the push-pull motivation theory section. Table 2.4 highlights that the

tourism motivations of Chinese tourists also appear in the push-pull motivation factors according to table 2.4. Chinese tourists have push factors of exploration, novelty, social interaction, reputation, avoiding stress, self-esteem, learning, relaxation and pursuit of excitement. Convenience facilities, natural and cultural environment, accommodation and transportation, food, history, culture, and comfort are the pull motivation factors for Chinese tourists.

Table 2.4 Chinese tourists' tourism motivations in push & pull factors

Push factors	Sources	Chinese tourists	Sources	Pull factors	Sources	Chinese tourists	Sources
Escape	Iso-Ahola (1989); Botha et al. (1999); Chen & Chen (2015)			Convenience facilities	Kozak (2002); Xu et al. (2010)	√	Tawil and Al Tamimi (2013)
Exploration	Iso-Ahola (1989); Chen & Chen (2015)	√	Jiang, Scott, Tao, et al. (2019)	Nightlife	Kozak (2002); Xu et al. (2010); Fakeye & Crompton, (1991)		
Novelty	Kim et al. (2003)	√	Tawil and Al Tamimi (2013); Hsu et al. (2010)	Sports facilities	Kozak (2002)		
Sociality	Kim et al. (2003); Botha et al. (1999); Chen & Chen (2015)	√	Jiang, Scott, Tao, et al. (2019)	Accommodation and transportation	Xu et al. (2010); Fakeye & Crompton, (1991)	√	Prayag et al. (2015)
Reputation	Kim et al. (2003); Botha et al. (1999)	√	Tawil and Al Tamimi (2013)	Pleasant natural and cultural environments	Xu et al. (2010); Fakeye & Crompton, (1991)	√	Jiang et al. (2015); Tawil and Al Tamimi (2013)
Avoiding personal/social pressure	Botha et al. (1999)	√	Jiang et al. (2015)	Infrastructure tourism	Xu et al. (2010); Fakeye & Crompton, (1991)		
Self-esteem	Botha et al. (1999)	√	Jiang, Scott, Tao, et al. (2019); Tawil and Al Tamimi	Food and friendly people	Xu et al. (2010); Fakeye & Crompton, (1991)	√	Pung and Del Chiappa (2018)

				(2013)			
Learning/discovery	Botha et al. (1999); Loker-Murphy (1996)	√	Jiang, Scott, Tao, et al. (2019)	Recreational activities	Xu et al. (2010); Fakeye & Crompton, (1991)		
Adventure	Chen & Chen (2015)			Historical heritage/culture	Xu et al. (2010); Turnbull & Uysal, (1995)	√	Tawil and Al Tamimi (2013); Pung and Del Chiappa (2018)
Relaxation	Chen & Chen (2015)	√	Hsu et al. (2010); Jiang et al. (2015)	Cities and Ruralization	Xu et al. (2010);); Turnbull & Uysal, (1995)		
Achievement	Loker-Murphy (1996)			Comfort and leisure	Xu et al. (2010); Turnbull & Uysal, (1995)	√	Hsu et al. (2010); Jiang et al. (2015); Prayag et al. (2015)
Stimulating pursuit	Loker-Murphy (1996)	√	Prayag et al. (2015)	Beach	Xu et al. (2010); urnbull & Uysal, (1995)		
				Low prices	Xu et al. (2010); Turnbull & Uysal, (1995)		
				Nature resources	Xu et al. (2010); Turnbull & Uysal, (1995)		

The research on Chinese tourists' motivation has been discussed, however, there are no studies of the tourism motivations of Chinese video game players. Dubois and Gibbs (2018) asserted that despite the literature on the link between tourism and media, apart from their article, there is no research on the link between tourism and games. In addition, their analysis is limited to English-language from their participants, while the video games are an international popular culture which have multiple languages.

2.6 Conclusion

This chapter has introduced video game players, video games and travel, popular culture and tourism motivations to help understand the research problem. There are relatively extensive literatures in each of these fields, but combining these areas of literature knowledge gaps appear. Determining the travel push and pull factors can better understand the impact of video games on players' travel motives. The literature of popular culture tourism provides some references for this research to discover the similarities and differences between video games and other forms of popular culture tourism.

Chapter 3 is the methodology which writes about the research paradigm, the research method, survey design on the tourist motivations of Chinese Assassin's Creed players. Methods to address the research goals and objectives are discussed. The questions of the questionnaire are mainly from the literature review.

3. Methodology

3.1 Introduction

This chapter will first introduce the research paradigm under which the research was conducted. The second section will discuss quantitative methods and their limitations. After that, the research design will be explained, the sample will be introduced and the data collection outlined, which includes the online questionnaire, the implementation process, and the method of data analysis.

3.2 Research Paradigm

A research paradigm is a consensus in understanding and solving problems, and is considered a research model or form, which has an effect on the content, methods, problems and solutions of the research (Kuhn, 1970; Usher, 2002). Methodology is used for the research and critical analysis of data generation, and the method also depends on the design and theory of the project (Grix, 2018; Rehman & Alharthi, 2016).

Positivism was chosen as the research paradigm for this study. Positivism is to discover objective truths of existence for scientific purposes. Positivism depends on the quantifiable observations of statistical analysis, and the research is based on facts, believing that the world is objective (Collins, 2018; Corry et al., 2019). Positivism refers to any system in which research is limited to data and excludes previous experience or speculation, while asserting that knowledge of facts is based on data. The data carried out by positivism is observable and can be analyzed by applying scientific methods (Feigl, 2020; Houghton, 2011). In this study, the positivist paradigm is the most suitable paradigm for the study. This study uses quantitative methods, and questionnaire surveys are the main method of collecting data.

3.3 Quantitative Research Method

Quantitative methods are scientific methods and can be proved in the positivist paradigm (Grinnell Jr & Unrau, 2010). Cohen et al. (2002) describe that quantitative research uses numbers to demonstrate. Regarding the collection of samples for quantitative research, survey research is to collect information from participants systematically. The survey includes sampling, questionnaire design, survey management, and data analysis, etc. (Sukamolson, 2007).

Quantitative research is widely used in tourism research (Baggio & Del Chiappa, 2016). Tourism is considered linear, causal, and complex and can be measured using data (Jennings, 2001). Besides, Jennings (2001) also states that tourism researchers can collect various data to determine tourists' motivations, behaviors and arrangements. Veal (2017) notes that tourism is still primarily based on descriptive data and Paul and Cozby (2012) mention that quantitative research in tourism research creates a framework of guidelines in data collection and analysis.

Quantitative methods have been used in the study of popular culture tourism and motivation, Oviedo-García et al. (2016) use quantitative method to find out motivation and travel phenomena caused by films. Suni and Komppula (2012) apply this method to analyze the research subject which confirm the tourism motivations of science-fiction movie visitors. Ng and Chan (2020) choose quantitative method to study the motivations of young people in Hong Kong from Korean TV dramas and Kirillova et al. (2019) find the anime consumer motivations through the quantitative research.

The advantages of quantitative research are that the data can be accurately studied. It is used to estimate the scale to quantify the results obtained in the research and verify the data obtained (Sukamolson, 2007). According to Sukamolson (2007), the advantages of quantitative methods are that providing an estimate of the overall population;

showing that people have a wide range of attitudes; specifying results that can be summarized as statistical data; allowing statistical comparisons between groups; having accuracy, certainty, and standardization; having measure levels of presence, measures, trends, etc.; being able to answer questions such as how much and how often. Jennings (2001) argues that researchers and participants can have an objective relationship without subjective factors. The data is the basis of statistical analysis, and the results of the survey can be used to draw more comprehensive findings from relevant research based on the sample groups.

The limitations of quantitative research are also considered in this chapter. In Hicks (1962)'s study, the mathematical models and equations in quantitative analysis cannot study the inherent nature of people when solving industry problems. Researchers also need to determine whether there is a correlation between related issues and quantitative models. Provenzano and Baggio (2019) discuss the quantitative in the tourism and hospitality industry and report that over time, a characteristic of quantitative research on tourism is the increasing complexity of the technology used. Future developments in tourism research rely on appropriate and well-performed analysis and comprehensive and effective integration between qualitative and quantitative methods. Sukamolson (2007) shows that quantitative research cannot conduct more profound research to explore concepts and is too superficial. Quantitative methods are better at considering causality and are not suitable for the meaning of specific situations.

3.4 Research Methods

3.4.1 Survey

The thesis takes Assassin's Creed as a case to study how to influence players' travel motives. The reason for choosing Assassin's Creed is that this game has a detailed description of the historical environment, and most of the locations that appear in the game are also the real world. Spring (2015) stats that the Assassin's Creed game uses

history to allow players to immerse and understand art, urban landscape, culture, scenery, and music. For avoiding cultural differences, there are four Assassin's Creed games (II, Brotherhood, Unity, and Syndicate) whose backgrounds are set in the same area, Western Europe with similar cultures. Table 3.1 is the introduction of four Assassin's Creed games.

Table 3.1 Introduction of Assassin's Creed Games

Assassin's Creed Games based on Western countries	Release Year	Brief Introduction	Background	Sales
II	2009	A third-person action-adventure game	The Italian Renaissance in 1486	9 million
Brotherhood	2010	A third-person historical fantasy game, a continuation of Assassin's Creed II	Rome, Renaissance in 1499	7.2 million
Unity	2014	An action -adventure game, the fifth work in the Assassin's Creed series	Paris in 1789, during the French Revolution	10 million
Syndicate	2015	It was released in October 2015, vividly depicting England under the Industrial Revolution	Victorian England in London	5.5 million

To better understand Chinese Assassin's Creed players' tourism motivations, an online survey was used, and participants were collected by posting to three major online communities. Qualtrics was used to distribute the questionnaires as it is supported and available at Victoria University of Wellington. Qualtrics use has also been used in previous research on tourism motivation (Spears et al., 2013) and other tourism studies (Kubickova & Campbell, 2020).

Online surveys can be conducted globally, and the Internet is a more practical, simple, and low-cost tool that allows respondents to complete surveys anywhere in the world (Evans & Mathur, 2018). The questionnaire allows participants to focus and ensure their

anonymity during the survey process (Ward et al., 2017). The researcher uses the online survey without direct interaction with the participants, so the anonymity of the survey is guaranteed to a certain extent. Questionnaires can show different variables and conclude the data. Therefore, the online survey can be spread by the Internet easily, let more qualified participants discover and complete the survey. Online surveys ensure anonymity of participants, and don't spend more time on making interview with participants.

3.4.1.1 Research Design

The survey was designed with reference to various factors such as scale, format, and questions investigated in previous studies on tourism motivation (Oviedo-García et al., 2016; Suni & Komppula, 2012). The survey was a self-completed questionnaire which allows participants to complete all the questions at their own pace (Jennings, 2001). Questions should be relevant to the purpose of the survey, do not touch on personal matters, are objective and rigorous in wording, easy to understand, not be subjective, and not include questions of great difficulty (Huang, 2012).

The survey used an online community to distribute the anonymous questionnaires. There were multiple-choice questions of a screening nature to accurately locate the participants and exclude data that did not meet the requirements. The questionnaire collected descriptive and exploratory data through the 7-Likert scale and single-choice questions. In addition, the last part was demographic questions, which could be filled out voluntarily. All the above were displayed using Qualtrics, and the results were exported to SPSS 27 for data analysis.

3.4.1.2 Structure

At the beginning of the questionnaire design are filtering questions so that the participants who meet the requirements of the questionnaire need to be screened out.

Allen (2017) states that filtering questions help participants avoid answering topics that ar1e not relevant to them. Respondents who answered "Yes" will be asked more detailed follow-up questions, while those who answered "No" will no longer discuss the topic. The screening problem is to reduce the burden on participants and avoid wasting the time of researchers collecting meaningless data.

Section 2 focused on the video game players and their behaviors. The first four questions were about how many times and how long players play Assassin's Creed games and other games in one week. The reason why asking times and frequencies was that understanding the level of players' participation in the Assassin's Creed game. Participation may change the way players' motivation to travel is affected (Chang, 2016). Regarding the time issue, the options were used for 1 to 5 hours, 6 to 10 hours, and more than 10 hours, and the number of playtimes was once, twice, three times, four times, or more. Considering that some participants do not play games every week, they have played games previously, so the option of "None" has been added. The meaning of using four choices in the questions was that the quartile (four choices) used for reporting time is used for data distribution and preliminary analysis (Kovess-Masfety et al., 2016).

Table 3.2 Gaming motivations and typologies of gamers

Survey Questions	Variables from kinds of literature	Literatures
To explore the new and unknown world	'Explorer'	Schuurman, et al.(2008), Tuunanen, et al. (2012), Nacke, et al.(2014), Ferro, et al. (2013)
To enhance my skill	'Enhance skills'	Schuurman, et al.(2008), Tuunanen, et al. (2012), Ferro, et al. (2013), Kahn,et al. (2015)
To do things that I cannot do in reality	'Escapist'	Schuurman, et al.(2008),Kahn,et al. (2015)
To be better than others	'Competitor'	Schuurman, et al.(2008), Tuunanen, et al. (2012), Ferro, et al. (2013), Kahn,et al. (2015)
To communicate with friends and others	'Social contact'	Schuurman, et al.(2008), Tuunanen, et al. (2012), Nacke, et al.(2014), Ferro, et al. (2013), Kahn,et al. (2015)
To fight in the game	'Killers'	Schuurman, et al.(2008), Tuunanen, et al. (2012), Nacke, et al.(2014), Ferro, et al. (2013)
To pass time	'Pass-time'	Schuurman, et al.(2008), Ferro, et al. (2013)

The next question was about the players' gaming motivations in the Assassin's Creed games. The main topic was which of the following behaviors were essential when playing Assassin's Creed games, and the question has seven statements based on the variables in table 3.2. Exploring a new world, enhancing skills, being an escapist, being a competitor, communicating with others, fighting or killing, and passing the time are the variables (see section 2.2, in Chapter 2). The variables in the table were selected based on previous literature, research background, and game relevance (Ferro et al., 2013; Kahn et al., 2015; Nacke et al., 2014; Schuurman et al., 2008; Tuunanen & Hamari, 2012) which was considered that these were related to the behavior of Chinese

Assassin's Creed players in the game. Similar to the studies conducted by Beard and Wickham (2016) and Kahn et al. (2015), the Likert scale was used to determine whether participants feel important or unimportant with their gaming motivations in the game. The Likert ranges from 1-very important, 2-important, 3-somewhat significant, 4-neutral, 5-somewhat unimportant, 6-unimportant, and 7-very unimportant. In Beard and Wickham (2016)'s research, they use questions about the type of game (such as achievement, immersion) to design questionnaires from "extremely unimportant" to "very important." In this thesis, similar methods were used. For example, playing Assassin's Creed games to explore new and unknown world. The questionnaire used understandable and straightforward sentences Kelly et al. (2003) argue that the questionnaire should be precise, give a clear description, and make the questionnaire easier to read.

Section 3 concerned tourism motivations and the questions were based on the theory of the push-pull factors (see section 2.5). These questions were about the reasons for visiting the countries that appear in both reality and Assassin's Creed that are important in travel and how important the factors that attract participants to travel. Table 3.3 and 3.4, above show that the explanations in the two questions come from different studies on popular culture and tourism motivation. The various push factors and pull factor variables came from the articles of different researchers (Busby et al., 2013; Chang, 2016; Gjorgievski & Melles Trpkova, 2012; Güzel & Güzel, 2017; Hosany et al., 2020; Josiam et al., 2020; Michael et al., 2020; Ng & Chan, 2020; Oviedo-García et al., 2016; Suni & Komppula, 2012). These questions were also used Likert scale ranging from 1-very important to 7- very unimportant.

Table 3.3 Tourism motivation statements: Push factors

Statements	Variables	Sources
Broadening my horizon	'Novelty'	Hosany, et al. (2020)
Experiencing something new	'Novelty'	Oviedo-García et al. (2016), Chang, D. Y. (2016)
Having a memorable experience.	'Novelty'	Suni, J., & Komppula, R. (2012), Busby, et al. (2013)
Expressing my love for Assassin's Creed	'Personal film-location connection'	Hosany, et al. (2020), Oviedo-García et al. (2016), Suni, J., & Komppula, R. (2012), Busby, et al. (2013)
Fulfilling a personal dream.	'Personal film-location connection'	Hosany, et al. (2020), Oviedo-García et al. (2016), Suni, J., & Komppula, R. (2012), Busby, et al. (2013)
Enhancing my relationship with friends/relatives.	'Sociality'	Suni, J., & Komppula, R. (2012)
Showing off and feeling superior.	'Ego-enhancement'	Suni, J., & Komppula, R. (2012)
Relaxing and reducing stress.	'Relaxation'	Oviedo-García et al. (2016), Suni, J., & Komppula, R. (2012), Chang, D. Y. (2016)
Reflecting on memories of playing Assassin's Creed.	'Nostalgia'	Oviedo-García et al. (2016)
Feeling safe.	'Control'	Oviedo-García et al. (2016)

Table 3.4 Tourism motivations statements: Pull factors

Statements	Variables	Sources
Locations and tourist attractions in which both Assassin's Creed and reality exist.	'Film-location connection'	Oviedo-García et al. (2016), Suni, J., & Komppula, R. (2012), Michael, et al. (2020), Chang, D. Y. (2016), Ng, et al. (2020), Güzel, et al. (2017), Josiam, et al. (2020)
Re-living atmosphere in Assassin's Creed when seeing in reality.	'Film-sites experience'	Suni, J., & Komppula, R. (2012), Güzel, et al. (2017), Josiam, et al. (2020)
Festival & Activities which are represented in Assassin's Creed.	'Film-sites experience' & 'Cultural activities'	Oviedo-García et al. (2016), Michael, et al. (2020), Chang, D. Y. (2016), Güzel, et al. (2017)
Connection with the role in Assassin's Creed.	'Touring the film.'	Suni, J., & Komppula, R. (2012), Chang, D. Y. (2016), Güzel, et al. (2017), Josiam, et al. (2020)
Personally experience the storyline of Assassin's Creed	'To personally experience the storyline of the film.'	Oviedo-García et al. (2016), Michael, et al. (2020), Chang, D. Y. (2016), Ng, et al. (2020), Josiam, et al. (2020)
Climate & Weather	'Location attributes'	Gjorgievski & Melles (2012)
Local culture	'Location attributes'	Gjorgievski & Melles (2012)
Local custom	'Location attributes'	Gjorgievski & Melles (2012)

Section four is the extent to which the Assassin's Creed game is the reason why the participants have visited Western European countries (such as France, Italy, or the United Kingdom). They were scoring questions and open questions. The score showed whether the participants Assassin's Creed game is the main reason for traveling and the reason for their scoring. The purpose of this section is to understand whether the participants have tourism motivations for games and travel and games so that they can

express their views.

The last part is the demographic question. There was a notice stating that participants can choose voluntarily because online survey should ensure the anonymity of online surveys and protect privacy of participants. Preventing participants from feeling privacy violations is important (Allen, 2017). The demographic question contains basic information about the participants: age, gender, the region in China they are from, the highest education level, occupation, and salary. Certain demographic information will affect the variables being investigated in research questions, asking about gender and age may be related to different types of motivation, and understanding the social and economic status of participants may also have an impact on tourism motivation (Allen, 2017).

The questionnaire was designed in English (appendix 1), but the participants are players living in a Chinese environment, so the questionnaire is also translated into Chinese.

3.4.1.3 Pilot Test

Before sending the questionnaire to three Chinese online communities and other social media platforms, a pilot test was conducted to check the questionnaire's grammar, words, and the pilot test results to predict the data results obtained after the official release. Participants in this pilot test are graduate students from Victoria University of Wellington and other university students. After receiving the feedbacks, the sentence structure and grammar were revised. Since pliot test is provided in Chinese, the translated version has some Chinese characters that may be difficult for participants to understand, so these were re-written. the research received ethical approval from the Victoria University of Wellington Human Ethics Committee.

3.4.2 Sampling Phase 1

The research of the thesis is based on a specific group (Chinese video gamers), but it is impossible to collect data for everyone in the group, so the sampling frame is determined. The sampling frame is used to define the specific population that the researcher needs, and also sets the elements required by the research, and the researcher can select a suitable population sample among these elements (Fowler Jr, 2013). The main goal of the sampling frame is to obtain a representative, small number of people with an accurate population summary (Ishak et al., 2014).

According to the research questions, Chinese video game players are purposive sampling. Jennings (2001) clarifies that purposive sampling determines what samples the researcher chooses for research, and the researcher uses his knowledge to select the most suitable unit for the study. The participant requirements were:

1) 18 years old or above is required so respondents are adults – this is for ethical reasons (the recommended age for Assassin's Creed is 15+). According to the Ubisoft store, Assassin's Creed's age limit for players is over 15 years old because the game may have shots of violence and other factors. However, due to age uniformity and to avoid creating demographic questions related to age, the range of answers will vary significantly according to the survey topic. The sample population will be mainly adults aged 18 and over as the primary target. Considering large sample size can reduce errors, Zamboni (2018) indicates that an immense sample value is conducive to the accuracy of the mean value. Outliers are a part of the sample. If there are outliers, the sample size should be increased to avoid them, and the error range will be narrowed due to the diversity of the sample.

2) They play Assassin's Creed II, Brotherhood, Unity or Syndicate (as these are all based in Western European settings)

3) Participants have been to Italy, France or the United Kingdom in the past five years because they are the national backgrounds of these games so they can recall tourism motivations. This last criterion was changed in the second phase of the study (see section 3.4.5 below).

The filtering questions were used to screen out participants who meet the above requirements and retain their data. These questions are whether the age is 18 years or above; Whether play Assassin's Creed II, Brotherhood, Unity, or Syndicate; Whether have been to France, Britain, or Italy in the last five years. If the participants choose "No" in the above three questions, the survey is ended.
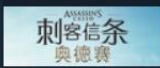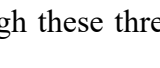
3.4.2.1 Selection of the Platform

As the survey was conducted during COVID-19 period, geographical restrictions made the investigation of Chinese Assassin's Creed players only available online. The target population were Assassin's Creed players from China, and there are three online communities related to this game, namely Assassin's Creed, Ubisoft, and Steam. These communities were selected because they are all related to the Assassin's Creed game, and the players who play Assassin's Creed are also concentrated in these three groups. Assassin's Creed, Ubisoft, and Steam, these three online communities are hosted by Baidu Tieba, an independent Baidu brand, and the world's largest Chinese community application. Tieba is a keyword-based theme exchange community closely integrated with search to grasp user needs accurately. There are thousands of online communities on various aspects in Tieba.

The Assassin's Creed online community was established in 2007. Ubisoft's Assassin's Creed and other game-related content are the main content of the online community. All players who play Assassin's Creed can join freely. As of 2021, this community has 589,000 members. Ubisoft is a video game developer and Ubisoft Bar is an online

community where Ubisoft players can discuss, post various information related to Ubisoft games, and solve game problems encountered by members. As Assassin's Creed belongs to games owned by Ubisoft, related content about Assassin's Creed can also be discussed. As of 2021, the community has 88,000 members. The third community is Steam Bar. The Steam platform is currently one of the world's largest comprehensive digital distribution platforms. Players can buy, download, discuss, upload and share games and software on this platform. Steam Online Community is one of the largest discussion groups on the Steam game platform in China and Assassin's Creed games are also sold on the Steam platform (Figure 3.1). As of 2021, the community has 3.134 million members.

Figure 3.1 Assassin's Creed games on the Steam platform

Although these three communities all contain Chinese Assassin's Creed players, it is also essential to consider that not all players are in these three groups. The benefit of using online communities is that more people can find the questionnaire. The financial cost of interaction in online communities is extremely low, or even costless, and online

communities promote instant, interactive, and low-cost communication (Miller et al., 2009). However, not everyone is in these three online communities, so this is also a limitation. Therefore, Assassin's Creed Bar, Ubisoft Bar, and Steam Bar are the leading data source platforms and collect participant data from other online community platforms and social networks.

3.4.3 Ethics Issues Consideration

The content and distribution of the questionnaire were revised and approved by the Human Ethics Committee of Victoria University of Wellington. Participants were told in the questionnaire that the survey is anonymous. The data were password protected, not shared, and only used for this study. Before preparing to send the questionnaire to the Chinese online communities, after communicating with the community administrators through private chat and ensuring information security, permission was obtained and the recruitment message (appendix 2) was posted to community members survey. Although Assassin's Creed is a fighting game with violent scenes, the participants voluntarily play the game. This game's age limitation that players should be 15+, but the threshold of 18 was used in the survey. In the process of playing the Assassin's Creed game, there may be some screens that make the player uncomfortable, or the more violent actions are manipulated and seen in the game, so avoid words about violence in the design questionnaire (such as killer to fighter) and remind participants at the beginning of the whole questionnaire about recalling the pictures and actions when playing the game. They also choose to join in Chinese online communities such as Assassin's Creed and often share their content when playing games in the community. Information sheets (appendix 3) and surveys start with warnings to remind people that they may need to recall scenes and places in the game without having to participate or answer all the questions. The front page of the questionnaire also told participants not to add any personal information, and the data will be destroyed after two years.

3.4.4 Data Collection Phase 1

To ensure the answer rate of the questionnaire and generate more usable data, after obtaining the permission of the owner of the online communities (see section 3.4.3), a post with a questionnaire link was posted in the community for everyone to see and complete the questionnaire. The survey started on December 12, 2020, and finished on January 28, 2021, there were total of 131 respondents who had started their survey. However, after reviewing the responses it was found that only 29 participants' data were useable. Among the three screening questions in the questionnaire, nine were filtered from the survey as they were under 18, 4 were removed as they not played one of the Assassin's Creed games, and 68 were not eligible as they had not visited Italy, France, or the United Kingdom in the last five years. In addition, 21 people did not complete all the questions were also ruled out. This required re-designing the research to increase the response rate and introducing a second data collection phase.

3.4.5 Phase 2 Redesigning the Survey

In the previous questionnaire, most participants were excluded because they had not travelled to the relevant countries. Most of the studies on tourism motivation are based on people who have traveled. As stated by McKercher (2009) and Dávid et al. (2020), studies on non-travelers' motivation which is the field that has not been studied. The motivation of non-travelers is an inadequately researched and understudied tourism phenomenon. In the literature of international tourism, in addition to general tourism theories, the motivations of non-travelers are unknown. The lack of relevant research in this field makes it impossible to understand their specific motivations. To fill this gap, this thesis seeks to develop a research question of non-travelers and takes into account two categories of participants (travelers and non-travelers) in order to understand the motivations of non-travelers by comparing and contrasting tourism motivations between travelers and non-travelers. The definition of non-travelers in this thesis is that they have not traveled to Italy, France or the UK in the past five years. To

increase the response rate, various options were considered and it was decided to include "non-travelers" (Dávid et al., 2020) in the study as well as travelers. A review of the literature at this point found that very little research has been done on this (Dávid et al., 2020).

As a result of the change in research question, the design of the questionnaire had also changed. In the filtering question, if participants choose no in the travel question, they were asked how interested they are to travel to Italy, France or the UK in the future if there is no COVID-19. These participants then had different questions about tourism motivations from the participants who had been to these countries in the last five years. Participants who had not been to travel were asked their interest in travelling to Western Europe and how important would each of the push and pull factors which might attract them to travel to Western Europe in the future. Section 4 was about the importance and reasons for Assassin's Creed as a player in the future to go to the countries that appear in both reality and Assassin's Creed. They were scoring questions and open questions. The score showed whether the participants thought Assassin's Creed game is the main reason for traveling and the reason for their scoring. The purpose of this section is the purpose is to understand whether the participants have tourism motivations for games and travel and games so that they can express their views.

The variables in the two questions were the same as those in the questions about tourism motivations in section 3.4.1.2. The same variables are used to make data statistics and analysis comparable. The questions in other parts are the same as in section 3.4.1.2. Those responding to survey 2 who had travelled to Western Europe were asked the same questions as those responding to survey 1. See table 3.5 for a comparison of questionnaire 1 and questionnaire 2.

Table 3.5 Similarities and differences between questionnaire 1 and 2.

	Questionnaire 1 (Travelers)	Questionnaire 2 (Travelers)	Questionnaire 2 (Non-travelers)
1. Are you aged eighteen or over?	√	√	√
2. Which of these Assassin's Creed games have you played?	√	√	√
3. Italy, France, and the United Kingdom respectively. Which countries have you visited in the last 5 years?	√	√	√
4. If there is no COVID-19, how interested are you in traveling to France, Britain, and Italy?			√
5. The number of times you play Assassin's Creed games per week.	√	√	√
6. How much time do you spend on playing Assassin's Creed games per week?	√	√	√
7. The number of times you play other games per week.	√	√	√
8. How much time do you spend on playing other games per week?	√	√	√
9. How important are each of following as reasons why you play the Assassin's Creed games?	√	√	√
10. For your visit to Western Europe, how important are each of following as reasons why you travelled?	√	√	
11. What you would like your travel to be in the Western Europe?			√
12. For your visit to Western Europe, how important are each of following as factors which attracted you to travel	√	√	
13. How important are each of the following as factors which might attract you to travel to Western Europe in the future?			√
14. To what extent was Assassin's Creed games a reason for visiting Europe countries like France, Italy, and the UK?	√	√	
15. To what extent is would Assassin's Creed game be a reason for visiting Western European countries like France, Italy, and the UK in the future?			√
16. Please explain your answer.	√	√	√
17. What is your age group?	√	√	√
18. What is your gender?	√	√	√
19. What province are you from in China?	√	√	√
20. What is your highest qualification completed?	√	√	√
What is your type of employment?	√	√	√
21. What is your personal income range per month?	√	√	√
22. Which online communities did you do this questionnaire in?	√	√	√

3.4.6 Data Collection Phase 2

The second edition of the questionnaire was distributed to Assassin's Creed, Steam, and Ubisoft online communities. Survey 2 started on January 28, 2021 and finished on February 24, 2021. The second version of the questionnaire has 239 participants. 131 out of 239 participants were useable data. Twelve were excluded because their ages are below 18, and 15 had not played the 4 Assassin's Creed games. A further 81 did not answer all the questions and became unavailable data (table 3.6). Through two online questionnaire surveys, a total of 160 responses were useable data. The profile of the respondents will be presented in section 4.3.

Table 3.6 Screening from two stages of data collection

	Questionnaire 1 (12/2020-1/2021)	Questionnaire 2 (1/2021-2/2021)	Total
Started survey	131	239	370
Filter 1: Over 18	Excluded 9	Excluded 12	21
Filter 2: Games	Excluded 4	Excluded 15	19
Filter 3: Travel	Excluded 68	N/A	68
Unfinished	Excluded 21	Excluded 81	102
Remaining	29	131	160

3.4.7 Data Coding and Entry

As an online survey, no additional data entry was required and the data was downloaded from Qualtrics and analyzed using SPSS. The codes are set at the end of collecting data, and the order of codes is determined by the question and the order of the options in the question.

3.4.8 Data Analysis

This research makes use of quantitative research in the positivist paradigm. Quantitative

research requires statistical analysis of data to understand the interpretation in the data and discover the relationship between variables. The methods of data analysis in quantitative research are described and used in the research on tourism motivation (Oviedo-García et al., 2016; Rittichainuwat & Rattanaphinanchai, 2015; Suni & Komppula, 2012). Data analysis is the part that discovers the relationship between data and can understand the true meaning of the content in the data collection and the correlation between them (Albers, 2017). The data collected from the online questionnaire is used to analyze and use in SPSS, and a variety of different data will be tested. The data will be used to verify the research questions. Four data analysis techniques are used: descriptive statistics, principal component analysis, cluster analysis and independent t-test.

First, using descriptive statistics to test participants' demographics, game playing, and travel experience. Nick (2007) claims that descriptive statistics usually use samples to estimate population characteristics. Kaur et al. (2018) point out that descriptive statistics can summarize raw data from participants. Descriptive statistics in the research include cross tabulation. Aprameya (2016) states that cross tabulation can understand correlations between different variables to look for trends and hidden relationships in the raw data, and they can help researchers gain a wealth of insights. Descriptive statistics and crosstabulation explore the relationship between demographic data, game playing, and travel experience and derive research findings from different variables.

Second, in tourism research, factor analysis has been applied widely. Kline et al. (2013) describes that factor analysis is a frequently used technique in science, especially in the evaluation of related research. Its purpose is to test the correspondence and correlation between variables or factors. In SPSS, the extraction method of factor analysis is principal component analysis (PCA). Park and Yoon (2009) mention that PCA can be used to analyze the data of motivational factors. According to the results of the data,

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motivation can be divided into multiple categories. PCA is also used in tourism, especially tourism motivations (Latorre et al., 2021; Park & Yoon, 2009; Suni & Komppula, 2012). The factors in PCA can be measured by factor loadings. The factor loadings are explained by considering their capacities (Trendafilov & Adachi, 2015). Besides principal component analysis, cluster analysis is another method to group factors. Morris (2019) states that cluster analysis is to observe and group similar variables into multiple clusters. Its purpose is to identify high-quality clusters. In some cases, there is no clear grouping. Clustering can find natural groupings. At presents, cluster analysis is also applied in tourism and tourist motivation research (Carvache-Franco et al., 2019; Lascu et al., 2018; Ramires et al., 2018). Using principal components analysis and cluster analysis to describe the dimensions related to game motivation and tourism push-pull factors (Cha et al., 1995). Jolliffe and Cadima (2016) claim that the above two factor analysis methods are designed to reduce the dimensionality of the data set and retain as much statistical information as possible. Factor analysis is a technique used to identify potential structures, so gaming motivations, travel push and pull factors are measured into several themes.

According to Nalbandi and Zonoozi (2019), the Kaiser-Meyer-Olkin (KMO) measure is bigger than 0.7 which means the reliability of measuring tools is good. In addition, when using the Kaiser criterion, all items with a factor load greater than 0.4 are included in a group, and all items with a factor load less than 0.4 are considered to have no relevance to the topic or group (Kruger & Saayman, 2010). Similarly, any item that cross-loads two factors with a factor load greater than 0.4 is classified as the most interpretable factor. Calculate the reliability coefficient (Cronbach's alpha) of each factor to estimate the internal consistency of each factor, all reliability coefficients are greater than 0.7 which means factors have high consistency within a component.

Finally, the independent t-test is used to compare the data between travelers and non-travelers in gaming behaviors, travel push and pull factors, and demographic

characteristics. Ross and Willson (2017) report that the independent sample t-test compares the values of two groups of data, and the data is the interval of each group. It has two assumptions with the same standard deviation. In the previous studies on tourist motivations, Kozak (2002) uses an independent t-test to check the difference between the nationality and destination of the tourist for the tourist motivation. The research also has two classifications, for participants, tourists, and non-tourists. Therefore, data analysis will also use independent t-tests to check for differences in gaming motivations and push and pull factors, comparing demographic factors. The significance level of the hypothesis for testing all questions is 5%, 0.05.

In the subsequent data analysis, some data may need to be folded or combined because the number of participants in some categories may be small.

3.5 Strengths and Limitations

The strength of this research lies in its contribution to under-researched areas of tourism. Video games and game players are the focus of this research, the purpose is to fully understand the impact of games on people's tourism motivation. The literature review shows that the current research is a knowledge gap in tourism. The results of this research will contribute to literature research on popular culture, video games, and tourism motivations.

Due to the limited literature on video games and tourism motivation, another advantage of this thesis is exploratory research to understand the impact of video games on players' tourism motivation. This thesis combines the existing literature on popular culture and tourism motivation and the research on the definition of electronic games and tourism motivation from the discoveries in films and TV dramas. This allows the research process of video games and tourism motivation to be linked to the research environment of popular culture tourism. In addition, pilot tests are used to ensure that the correct language is used in the production line survey. The questionnaire is based on positivism

to ensure that the background of the research is considered and fits into the entire analysis process.

This thesis uses quantitative methods to verify and explore the statistical results in the data. Concentrating the sample frame population in a large online gaming community can ensure that more representative samples are obtained. This allows a wider selection of factors and sample sizes to be investigated for analysis, and a better understanding of the factors that video games contribute to players' tourism motivation.

There are some limitations to be aware of. One restriction is related to the data given by the participants. This may be because participants need to complete the online questionnaire on their own. The survey is conducted online. Some participants are too busy to complete their own affairs, and some participants may have incorrect data due to perfunctory reasons. Therefore, 102 questionnaires were uncompleted as so were not usable data.

Secondly, the use of online surveys to measure respondents' tourism motivations affected by Assassin's Creed games assumes that only reached gamers who are part of the three online communities is a limitation as there may be other Chinese gamers who are not part of these communities or may not have seen the recruitment post. This may lead to non-community members being incompletely represented in the research.

Finally, regarding the online communities, Assassin's Creed, Ubisoft and Steam (used to provide information to participants) have the most members, especially Assassin's Creed. These sites were chosen because of their large numbers and the conditions to collect data from a large number of participants. This thesis does not discuss other small online communities or other social software related to Assassin's Creed. The impact of games on players' tourism motivation may vary. There is a possibility that not all Assassin's Creed players are in the three selected online communities. However, it is

important to recognize that there are different but related concepts being considered: travelers are recalling their motives related to actual travel, while the non-travelers are considering the motives of possible future travel.

3.6 Conclusion

This chapter introduced the method steps used to study video games and tourism motivation. The chapter describes the methods that support the purpose and questions of the thesis, and the positivist view and the quantitative methods used for data collection. The main questions in the questionnaire (such as gaming motivation, tourism motivation) were determined based on the literature review. Due to the lack of literature on video games and tourism motivation, this thesis uses other popular culture tourism motivation research. Followed by the online platform regarding the participant's requirements and choices, the ethical issues encountered and the process of using the questionnaire survey. The chapter then introduced the data analysis methods, and reviewed existing data analysis in related literature, including the use of descriptive statistics, principal component analysis, cluster analysis, and independent sample t-test. Finally, the advantages and limitations of this research were discussed.

The next chapter presents the findings. First, it discusses the characteristics of the respondents. For game motivation, push and pull factors used descriptive analysis. Cluster analysis is used to identify gaming motivation groups (or gamer typology). PCA is used to reduce the push and pull factors into common themes. Finally, four research questions that focus on the push and pull factors (themes) are explored through independent sample t-tests.

4. Findings

4.1 Introduction

Chapter three introduced the process of determining the requirements of sample which is the eligibility of responses, collecting online survey data, and the approach to data analysis. This chapter presents the findings gathered from these methodological processes to answer the research questions.

First, an analysis of responses is conducted to illustrate the number of participants and the status of the respondents who have completed the survey. Second, socio-demographic data and the main motivations of participants for gaming and travel are presented. Third, the analysis uses principal component analysis to group push factors and pull factors, with Cronbach's alpha used to test the consistency of data in each component. Cluster analysis is used for grouping players into types according to their gaming motivations. Fourth, independent sample t-tests are used to compare travelers and non-travelers; demographic data and tourism motivations; typologies of players and tourism motivation' and the time and frequency of playing video games and tourism motivations to check if there are any differences in the push or pull factors components. Finally, the statistical test results are introduced to verify various research questions. This confirms the influence of Assassin's Creed games on the tourism motivation of Chinese Assassin's Creed players.

4.2 Analysis of Responses

As indicated in chapter 3, 131 participants contributed to the first version of the questionnaire, and 239 to the second version, so in total, we have 370 participants (see section 3.4.6). Note that all the participants belong to the following online communities where the two questionnaires were posted: Assassin's Creed, Steam, and Ubisoft. The first-stage survey has 22.13% usable questionnaire data, and the second stage has 54.81%

(Table 4.1); useable data is where the respondent met the filter criteria and completed the full questionnaire. Data from both versions of the questionnaire are integrated and analyzed, but some questions are analyzed separately because they were only included in the second version of the questionnaire (See table 3.6 in section 3.4.6).

Table 4.1. number of participants and percentage of usable questionnaire

	Number of participants	Number of participants who have completed the questionnaires	Percentage of usable questionnaire
First version	131	29	22.13%
Second version	239	131	54.81%
Total	370	160	43.24%

4.3 Respondent profile

The purpose of this section is to provide demographic information regarding the participants of this study such as gender, age, residential areas in China, etc.

Table 4.2 Overall demographic data

Demographic information	Number of people	
Age	18-25	109
	26-33	38
	34-39	6
	40-over	1
	Unknown	6
Gender	Male	137
	Female	15
	Unknown	8
Residential areas in China	East	60
	North	19
	South-West	7
	North-West	2
	South	9
	North-East	4
	Central	8
	Unknown	51
Qualification	Technical school	1
	High school	13
	College	27
	Bachelor	85
	Master	12
	Doctorate	5
	Others	6
	Unknown	11
Type of employment	Student	82
	Part-time Employment	7
	Full-time Employment	63
	Retried	5
	Unknown	9
Monthly salary (Yuan)	Less 1000	51
	1000-4999	36
	5000-9999	38
	10000 or over	21
	Unknown	14
Online community platform used	Assassin's Creed	82
	Steam	44
	Ubisoft	14
	None	20

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Table 4.2 shows that the participants were mainly aged between 18-25 years, representing that Assassin's Creed games are mainly played by young people, accounting for 68.12% of the total, and for gender, 137 (85.62%) were men and only 15 (9.3%) women. Assassin's Creed games seem to have more male gamers in China. The residential area of the participants, most of them reside in East China (37.5%). Note that there are a large number of participants (51, 31.87%) who did not indicate the province where they live. In terms of qualifications, 53.12% of the respondents have at least bachelors' degrees representing a total of 85 people. More than 50% of the participants are students. 82 respondents are students 63 are full-time employees and 7 are in part-time employment. In terms of salary, the monthly wage of participants is less than 1,000 yuan (approximately 218 NZ dollars, exchange rate on July 2), which accounts for the majority, with 51 people (31.87%).

Table 4.3 Number of participants per Assassin's Creed game.

Assassin's Creed games' name	Number of participants who have played
Assassin's Creed II	119
Assassin's Creed Brotherhood	115
Assassin's Creed Unity	127
Assassin's Creed Syndicate	103

Table 4.4 Number of Assassin's Creed game played by participants.

Number of Assassin's Creed games played (II, Brotherhood, Unity, Syndicate)	Number of participants
One game	30
Two games	27
Three games	32
All four games	71

Table 4.5 Number of hours on Assassin's Creed games and frequency played by participants

Weekly frequency of Assassin's Creed games played by participants	The number of participants	Total
None	14	160
Once	38	
Twice	25	
Three times	27	
Four times or over	56	
Weekly number of hours spent on Assassin's Creed games	The number of participants	Total
None	13	160
1-5 hours	89	
6-10 hours	33	
Over ten hours	25	

Table 4.6 Number of hours on other games and frequency played by participants

Weekly frequency of other games played by participants	The number of participants	Total
None	3	160
Once	10	
Twice	29	
Three times	20	
Four times or over	98	
Weekly number of hours spent on other games	The number of participants	Total
None	4	160
1-5 hours	53	
6-10 hours	35	
Over ten hours	68	

Table 4.3, 4.4, and 4.5 provide information about gamers: average time spent and frequencies playing games, and the number of games played. Of the four Assassin's Creed Games in the study (i.e., the four set in Western European locations), Unity is the most played game with 127 players, followed by II (119). Syndicate has fewer people than the other three games (105). 71 of the 160 participants have played all four Assassin's Creed games representing more than 44% of the total number of participants.

Regarding the weekly frequency of games played, 35% of participants mentioned that they play at least four times a week. Although participants play Assassin's Creed games many times a week, they usually spend less hours on playing these games, with more than half (89) playing only one to five hours. Participants who have not played an Assassin's Creed game within the week of the survey appear in the table 4.5. It is understood that they have not played the four Assassin's Creed games recently but have played them previously. In addition to Assassin's Creed, many participants also play other games, with 61.25% (98 of 160) of participants playing four or more times a week (table 4.6). Assassin's Creed is just one of the games that participants usually play, and they spend more time on other games. 25 respondents spend over ten hours a week playing Assassin's Creed, and 68 respondents spend over 10 hours a week playing other games.

Table 4.7 Number of respondents that have visited France, Italy, or the UK

Countries	Number of participants
France	34
Italy	33
The United Kingdom	33

Table 4.7 reveals that the number of participants who have visited Italy or the UK is the same (33 participants out of 63) with one more for France (34 out of 63 participants). Table 4.8 shows that 37 participants have been only to one of the above countries and only 11 participants have visited all three countries.

Table 4.8 Number of countries (of France, Italy or the UK) visited by participants

Number of countries	Number of people	Total
One country only	37	63
Two countries	15	
All three countries	11	

4.4 Descriptive Statistics

After summarizing the main characteristics of respondents, this section focuses on participants' gaming motivations and tourism motivations of push factors and pull

factors.

Table 4.9 Motivations for playing Assassin's Creed games (comparing travelers and non-travelers)

Most important	Total (N=160)			Participants who have traveled. (N=63)		Participants who haven't traveled. (N=97)	
		Mean	Std. Deviation	Mean	St. Deviation	Mean	St. Deviation
1	To explore the new and unknown world	1.76	1.15	1.61	1.02	1.85	1.22
2	To do I cannot do in reality	2.45	1.72	2.49	1.78	2.42	1.70
3	To fight in the game	3.05	1.60	3.30	1.50	2.89	1.64
4	To pass time	3.4	1.67	3.58	1.83	3.27	1.55
5	To enhance my skills	3.61	1.75	3.60	1.79	3.62	1,74
6	To communicate with friends and others	4.41	1.78	4.38	1.79	4.43	1.78
7	To be better than others	5.14	1.67	5.31	1.42	5.03	1.82

In terms of gaming motivations, table 4.9 illustrates various gaming motivations for playing Assassin's Creed. The order is based on the means values of 7 motivations' factors for playing Assassin's Creed games with the lowest mean values representing the most important gaming motivation. This table shows that the ranking is consistently the same whether the participants have travelled (to France, Italy or the UK in the last five years) or not. The exploration of new and unknown world is perceived the most important motivation factor for playing Assassin's Creed games (M=1.76, SD=1.15). Doing things that the participants cannot do in reality is perceived as the second important motivation factor (M=2.45, SD=1.72) and fighting in the game is the third important motivation factor (M=3.05, SD=1.60).

Note that although both travelers and non-travelers have the importance of gaming motivations in same order, respondents who have not travelled had higher importance (M=2.42, SD=1.70; M=2.89, SD=1.64) than the respondents who have travelled (M=2.49, SD=1,78; M=3.30, SD=1.50) in terms of doing things that cannot do in reality and fighting in the game (lower means=more important, see Table 4.9).

Table 4.10 Importance of Assassin's Creed as a reason to travel to Western Europe

Importance	Travelers (N=67)	Percentage %	Non-travelers (N=98)	Percentage %
10	5	7%	12	12%
9	5	7%	5	5%
8	8	11%	14	14%
7	10	14%	13	13%
6	8	11%	17	17%
5	9	13%	11	11%
4	5	7%	8	8%
3	4	5%	5	5%
2	2	2%	1	1%
1	0	0%	3	3%
0	11	16%	9	9%
Mean score	Travelers: 5.3 Non-travelers: 5.8			

In terms of the importance of Assassin's Creed as a reason to travel to Western Europe, table 4.10 illustrates that 25% of travelers gave a score of 8, 9 or 10, suggesting that Assassin's Creed was an important reason for visiting Western Europe. 18% gave a score of 0, 1 or 2, suggesting it was not a reason. The mean score was 5.3 suggesting that for most travelers, the game was one of the reasons for travel, but not the main one. 31% of non-travelers gave a score of 8, 9 or 10, suggesting that Assassin's Creed was

an important reason for visiting Western Europe. The mean score was 5.8 and non-travelers saw Assassin's Creed as a slightly stronger reason to travel to Western European countries than travelers (mean 5.3).

The next part discusses the tourism motivations of push and pull factors among participants.

Table 4.11 Travel push factors of participants (comparing travelers and non-travelers)

		Travelers. (N=63)		Non-travelers. (N=97)	
		Mean	St. Deviation	Mean	St. Deviation
1	Experiencing something new	1.61	1.02	1.71	1.07
2	Broadening my horizon	1.71	0.99	1.75	0.96
3	Having a memorable experience	2.09	1.41	2.09	1.34
4	Relaxing and reducing stress	2.53	1.25	2.31	1.26
5	Reflecting on memories of playing Assassin's Creed	2.92	1.59	2.86	1.68
6	Fulfilling personal dream	3.08	1.66	3.42	1.81
7	Expressing my love for Assassin's Creed	3.41	1.68	3.44	1.65
8	Feeling safe	4.11	1.79	4.37	1.94
9	Enhancing relationships with friends/relatives.	4.65	1.82	4.70	1.85
10	Showing off and feeling superior.	5.39	1.58	5.51	1.64
Total average		3.15	1.47	3.21	1.52

Table 4.11 shows that the ranking of travel push factors for travelers and non-travelers is also the same. Participants who have visited Italy, France, or the United Kingdom over the last five years and those who have not been to these countries have similar perceptions of push factors' tourism motivations. Experiencing new things (travelers,

M=1.61, SD=1.02; non-travelers, M=1.71, SD=1.07) and broadening participants'
horizons (travelers, M=1.71, SD=0.99; non-travelers, M=1.75, SD=0.96) are among the
most important travel push factors for all our participants. Additionally, these two push
factors seem to be slightly more important for travelers than for non-travelers. In
contrast, showing off and feeling superior are not important push factors for travelers
(M=5.39, SD=1.58) and non-travelers (M=5.51, SD=1.64). After describing the push
factors of the participants, the following table is related to the pull factors.

Table 4.12 Travel pull factors of participants (comparing travelers and non-travelers)

	Travelers. (N=63)				Non-travelers. (N=97)		
		Mean	St. Deviation			Mean	St. Deviation
1	Local culture	2.06	1.18	1	Local custom	2.30	1.28
2	Local custom	2.26	1.24	2	Local culture	2.36	1.32
3	Locations and tourist attractions in which both Assassin's Creed and reality exist.	2.28	1.54	3	Locations and tourist attractions in which both Assassin's Creed and reality exist.	2.40	1.34
4	Connection with the role in Assassin's Creed.	2.83	1.77	4	Connection with the role in Assassin's Creed	2.96	1.59
5	Re-living atmosphere in Assassin's Creed when seeing in reality.	2.92	1.65	5	Re-living atmosphere in Assassin's Creed when seeing in reality.	3.00	1.56
6	Climate & Weather	2.98	1.64	6	Climate & Weather.	3.11	1.62
7	Festival & activities which are represented in Assassin's Creed.	3.22	1.64	7	Festival & activities which are represented in Assassin's Creed.	3.19	1.60
8	Personally experience the storyline of Assassin's Creed	3.46	1.80	8	Personally experience the storyline of Assassin's Creed.	3.38	1.71
Total average		2.75	1.55			2.83	1.50

Similarly, table 4.12 shows minor differences in terms of ranking of pull factors

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between travelers and non-travelers. The top three motivations of the two sub-groups are local culture, local custom, and locations and tourist attractions in which both Assassin's Creed and reality exist. For travelers, local culture is the most important pull factor (M=2.06, SD=1.18). Among non-travelers, local customs are the most important pull factor (M=2.30, SD=1.28). Comparing with travelers and non-travelers, the importance of local culture is higher among the sub-group of participants who have traveled. Although local customs are the first among non-travelers, the mean value is lower than the one for participants who have travelled. Even if the "local customs" is perceived as the second most important pull factor among participants who have traveled, this pull factor is still considered more important than for participants who haven't travelled on average. The ranking of the pull factor 'location and tourist attractions exist in reality and in Assassin's Creed' is the same for both travelers and non-travelers in table 4. (traveler, M=2.28, SD=1.54; non-traveler, M=2.40 SD= 1.34).

Note that from tables 4.11 and 4.12, the overall importance of tourism pull factors is relatively higher than the overall importance of tourism push factors since the average mean value of pull factor is equal to 2.75 (travelers) and 2.83 (non-travelers) compared with 3.15 (travelers) and 3.21 (non-travelers) for the average mean value of push factor.

4.5 Result of Data Analysis

Principal component analysis and cluster analysis were used to determine if multiple items were measuring the same component based on the motivation factors of playing games and tourism push pull motivations. Based on these components, the independent sample t test was used for analyzing four research questions.

4.5.1 Principal Components Analysis

The purpose of the principal component analysis is to reduce the number of variables (push and pull factors) into a small number of components that can be used to look for

differences between travelers and non-travelers; age and gender groups; different types of gamers, and groups based on the time and frequencies of playing Assassin's Creed games. Principal component analysis aids data interpretation. It is designed to aid in the interpretation of the factors (see section 3.4.8).

Before executing the data, this latter needs to be tested for its suitability and reliability. The Kaiser-Meyer-Olkin and Bartlett's test were used. The principal component analysis was used to reduce the dimension of the data, and each resulting component represents a theme (see section 3.4.8).

4.5.1.1 Push Factors

A principal components analysis (PCA) was run on the 10 push factor items that measured the essence of tourism motivation and the internal driving force of tourism (Dann, 1977) on 160 Chinese Assassin's Creed players. First, it is necessary to check the suitability before principal component analysis. The Kaiser-Meyer-Olkin (KMO) measure was 0.749, a classification of "middling" according to Kaiser (1974). Bartlett's test of sphericity was statistically significant ($p < .001$), indicating that the data was likely suitable. PCA revealed three components that had eigenvalues more critical than one and which explained 35.8%, 16.2%, and 11.0% of the total variance, respectively. The principal component analysis with varimax orthogonal rotation was employed to aid interpretability, but the rotated solution did not exhibit a simple structure as both reducing stress and feeling safe items had two loadings above 0.4. The themes of these items (relaxation and control, respectively) did not sit with the overall themes of the extracted components, so these were excluded, and the PCA repeated. (see table 4.13)

Table 4.13 Factor analysis for push factors

	Factor 1	Factor 2	Factor 3
Broadening my horizon (Novelty)	0.811		
Experiencing something new. (Novelty)	0.876		
Having a memorable experience. (Novelty)	0.725		
Expressing my love for Assassin's Creed. (Personal-location connection)			0.871
Fulfilling a personal dream. (Personal-location connection)		0.603	
Enhancing relationship with friends/relatives. (sociality)		0.809	
Showing off and feeling superior. (Ego-enhancement)		0.704	
Relaxing and reducing stress. (Relaxation)	0.449	0.467	
Reflecting on memories of playing Assassin's Creed (Nostalgia)			0.891
Feeling safe. (Control)		0.543	0.425
Variance explained	35.8%	16.2%	11.0%

* Loadings less than 0.3 have been excluded.

After excluding two items inconsistent with the overall theme of extracted components, a principal component analysis in eight driving factors was evaluated. The KMO indicated that PCA should be useful for the data, with KMO value of 0.700 ("medium"), and the sphericity test of bartlett was statistically significant ($p < .001$), indicating that the data was suitable. PCA revealed three components that had eigenvalues more critical than one, which explained respectively 38%, 19.1%, and 13.3% of the total

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variance. The principal component analysis with Varimax orthogonal rotation was employed to aid interpretability, and three components of push factors were presented in table 4.14. The items that best loaded onto each component are highlighted in bold.

Table 4.14 Factor analysis for push factors

	Factor Loadings		
	Factor 1 Novelty	Factor 2 Sociality	Factor 3 Game-related
Broadening my horizon (Novelty)	**0.891**	0.007	0.055
Experiencing something new. (Novelty)	**0.852**	0.145	0.076
Having a memorable experience. (Novelty)	**0.695**	0.108	0.182
Fulfilling a personal dream. (Personal-location connection)	0.319	**0.672**	0.222
Enhancing relationship with friends/relatives. (sociality)	0.024	**0.815**	0.011
Showing off and feeling superior. (Ego-enhancement)	0.020	**0.731**	0.228
Expressing my love for Assassin's Creed. (Personal-location connection)	0.083	0.251	**0.885**
Reflecting on memories of playing Assassin's Creed (Nostalgia)	0.191	0.110	**0.900**
Variance explained	35.8%	16.2%	11.0%
Cronbach Alpha	0.754	0.656	0.818

The next measure was using Cronbach Alpha to estimate the internal consistency of each factor. Calculated Cronbach alpha found that the values of novelty and game related two groups exceed 0.7, which were 0.754 and 0.818 respectively, indicating that they are consistent and the reliability coefficient were high (table 4.14). However, sociality's value is 0.656, which is less than 0.7. According to the existing literature,

The commonly accepted Cronbach alpha rule in research is greater than 0.6 or 0.7 as the acceptable reliability level (Ursachi et al., 2015). In Suni and Komppula (2012)'s research on tourism motivations, all values greater than 0.6 are considered the lowest acceptable level of agreement. Hudson et al. (2011) also note that the reliability score is between 0.5 and 0.7, indicating that the factor structure has fairly good reliability. Therefore, the three factors in sociality are considered as the acceptable consistency.

Three push factor components, novelty, sociality, and game-related push factors were labelled according to the result of principal component analysis. The first component, novelty, explains 35.8% of the total variance and contains the following items: broadening my horizon, experiencing something new, and having a memorable experience. The second component is sociality, explains 16.2% of the total variance and contains fulfilling a personal dream, enhancing relationships with friends and relatives, showing off, and feeling superior. The third component "game-related" explains 11.0% of the total variance and has expressing my love for Assassin's Creed and reflecting on memories of playing Assassin's Creed as they are the only items that directly refer to the game. From table 4.14, game-related push factors have the highest factor loadings among three components, 0.900.

4.5.1.2 Pull Factors

A principal components analysis (PCA) was also run on the 8 "pull factor" items that were measured by representing a series of destination attributes perceived by location (Prayag & Ryan, 2011). The KMO measure was 0.781 and indicated that the PCA should be useful for the data. PCA revealed two components that had eigenvalues more important than one and which explained 47.7% and 28.1% of the total variance, respectively. The principal component analysis with a varimax orthogonal rotation was employed to aid interpretability, and two components were presented in table 4.15.

Table 4.15 Factor analysis for pull factors

	Factor loadings	
	Factor 1 A/C-related	Factor 2 Local attributes
Locations and tourist attractions which both Assassin's Creed and reality exist. (Game-location connection)	**0.847**	0.071
Re-living atmosphere in Assassin's Creed when seeing in reality. (Game-sites experience)	**0.879**	0.032
Festival & Activities which are represented in Assassin's Creed. (Game-sites experiences & cultural activities)	**0.853**	0.158
Connection with the role in Assassin's Creed. (Touring the game)	**0.895**	-0.012
Personally experience the storyline of Assassin's Creed (To personally experience the storyline of the game.)	**0.859**	-0.036
Climate & Weather (Local attributes)	0.164	**0.686**
Local culture (Local attributes)	-0.063	**0.945**
Local custom (Local attributes)	-0.006	**0.943**
Variance explained	47.7%	28.1%
Cronbach Alpha	0.918	0.806

The next measure was using Cronbach Alpha to examine the consistency of each factor. In Cronbach alpha, the values of "Assassin's Creed-destination connection" and "Local attributes are 0.918 and 0.806, respectively, which are more than 0.7 and indicating that they are consistent and the reliability coefficient were high.

Two pull factor components, Assassin's Creed-destination connection and local attributes were labelled according to the result of principal component analysis. The first component Assassin's Creed-destination connection explains 47.7% of total variance and contains the following items: locations and tourist attractions which both Assassin's Creed and reality exist; re-living atmosphere in Assassin's Creed when seeing in reality; festival & Activities which are represented in Assassin's Creed; connection with the role in Assassin's Creed and personally experience the storyline of Assassin's Creed. The second component, local attributes, explains 28.1% of total

variance and contains climate & weather, local culture, and local customs. Table 4.15 illustrates the pull factors variables in the local attributes had the highest factor loading, which demonstrated that they had high correlation with the factor.

In summary, the push factors of Assassin's Creed players are novelty, social and game relevance, and the pull factors are Assassin's Creed relevance and local attributes. These motivations are classified into several components to understand their existence, demographic characteristics, game motivation and participation (time and frequency spent playing games) among travelers and non-travelers. The next section identifies the types of gamers.

4.5.1.3 Group of Gamers

Firstly, a principal components analysis (PCA) was run on the 7 gaming motivations items that measured the causes and motivations of playing video games. The suitability of PCA was assessed before analysis, the Kaiser-Meyer-Olkin (KMO) measure was 0.604, a classification of 'middling' according to Kaiser (1974). Bartlett's test of sphericity was statistically significant ($p < .001$). Although the results indicate that the PCA should be useful for the data, KMO was not great to use because 0.604 is mediocre (Kaiser, 1974). A Varimax orthogonal rotation was employed to aid interpretability, but the rotated solution did not exhibit a 'simple structure' (table 4.16). The analysis indicated three components should be extracted, and the fighting in game had multiple loadings above 0.4. Given the content of Assassin's Creed, fighting is one of the essential elements of the game and cannot be removed. Furthermore, the themes of the resulting three components were not clear so it was determined that unlike the push and pull factor of tourism motivation, each element of game motivation is unique. Therefore, K-means cluster analysis was conducted.

Table 4.16 Rotated component matrix-gaming motivations

	Factor Loadings		
	1	2	3
To explore new and unknown world. (Explorer)	-.154	**.781**	-.252
To enhance my skills (Aggressive)	**.569**	.375	-.124
To do I cannot do in reality (Escapist)	.194	**.812**	.097
To be better than others (Competitive)	**.754**	-.015	.008
To communicate with friends and others (Socializer)	**.779**	-.014	-.043
To fight in the game (Fighter)	**.471**	**.487**	**.514**
To pass time (Pass-time)	-.174	-.148	**.861**

The purpose of cluster analysis is to identify high-quality clusters. In some cases, there is no explicit grouping. Clustering can find natural groups (Morris, 2019). Table 4.17 and figure 4.1 show that the cluster analysis takes all 7 items (explorer, escapist, aggressive, competitive, socializer, fighter, pastime), and based on the responses to these items, gamers are grouped into one of two groups. Gamers in cluster 1 tended to rank things as less important, having higher scores for explorer, aggressive, escapist, competitive, socializer, and fighter. Only players in cluster 1 who pass the time are more important than those in cluster 2. In other words, both groups/clusters said explorer was most important, but gamers in cluster 2 were more likely to be aggressive, escapist, competitive, socializing, and fighters. Individuals in cluster 1 ranked passing time as more important than those in cluster 2 (although not significantly different). For these reasons, cluster 1 will be referred to as the "casual" gamers (N=63) (ranking the reasons for playing as less important than those gamers in cluster 2). Poels et al. (2012) assert that casual players have a casual attitude and Fritsch et al. (2006) explain that they play games with a normal mentality. Cluster 2 contains the "hardcore" gamers (lower ranks

= more important). Fritsch et al. (2006) mention that hardcore players have a very clear understanding of what to do in the game, are very loyal to the game, and have a higher interest in the game than others. Therefore, the classification and motivation of game players in cluster 2 are clear, so they are confirmed as hardcore players (N=97).
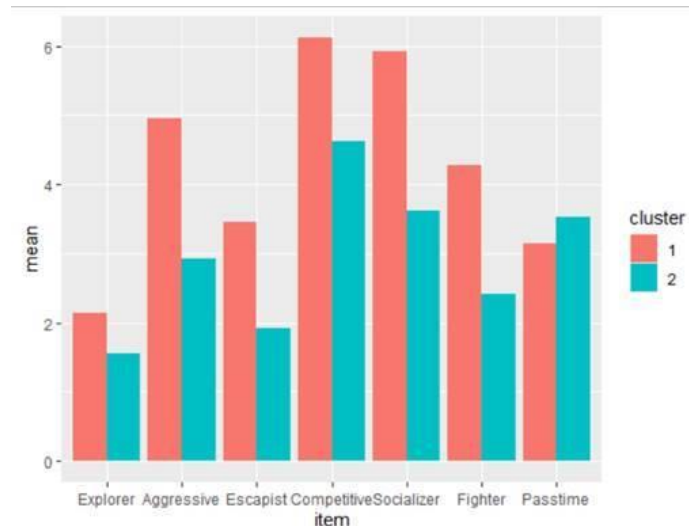
Figure 4.1 Histogram of player clusters

Table 4.17 Cluster analysis-gaming motivations

	Hardcore Players (N=97)	Casual Players (N=63)
Explorer	1.58	2.05
Aggressive	2.77	4.92
Escapist	1.93	3.25
Competitive	4.47	6.17
Socializer	3.55	5.75
Fighter	2.41	4.05
Pass time	3.47	3.49

Through K-means cluster analysis, the frequency and time per week of playing Assassin's Creed are divided into two clusters, the first cluster is players who have played Assassin's Creed only twice, once or no times a week (but have played the game previously) (see section 3.4.1.2). This cluster are labeled "less-involved players" and there were 76 respondents in this cluster. The second cluster are players who have played Assassin's Creed games three times to four times or more each week; they are "more-involved players" and there were 84 respondents (table 4.18). Table 4.19

illustrates that more-involved players are concentrated in playing 3 or 4 times or more a week, and the time is mostly from six hours to ten hours or more. Less-involved players are concentrated in playing one to two times a week, and the time is mostly one to five hours. This also proves that more-involved players participate in the game more frequently.

Table 4.18 K-means Cluster analysis- hours and frequency of playing Assassin's Creed games

Clusters of gamers	Numbers of gamers
More-involved players	84
Less-involved players	76

Table 4.19 Number of hours on Assassin's Creed games and frequency played by travelers and non-travelers

Weekly frequency of Assassin's Creed games played by participants	More-involved players	Less-involved players	Total
None	0	14	160
Once	0	38	
Twice	1	24	
Three times	27	0	
Four times or over	56	0	
Weekly number of hours spent on Assassin's Creed games	More-involved players	Less-involved players	Total
None	0	13	160
1-5 hours	31	58	
6-10 hours	28	5	
Over ten hours	26	0	

In summary, the push factors for tourism are divided into three major factors: novelty, sociality and gaming-related push factors. The pull factors are divided into two major factors: Assassin's Creed and the destination's connection and location attributes. In the classification of players, they are divided into hardcore players and casual players according to the motivation of the gamers and divided into more-involved players and less-involved players based on time and frequency. The following independent sample

t-tests are based on the classification in factor analysis to get findings in video games and tourism motivation.

4.5.2 Comparisons of Independent T-Test

The results were divided into push factors and pull factors. To compare travelers and non-travelers, demographic characteristics, time and frequency of gaming, and player typologies, independent t-tests are used for push-pull factors. Independent sample T-tests are used to compare the mean values of several sub-groups in order to test whether the differences between these sub-groups are significant or not. The following sub-sections present the findings of the independent sample t tests.

4.5.2.1 Push factors and independent T-test findings

Travelers and non-travelers

The first research question is related to the difference in terms of push factors between travelers and non-travelers among Chinese Assassin's Creed players. Table 4.20 shows that novelty is perceived an important push factor for both groups and the difference is not significant between travelers and non-travelers, p=0.820. Additionally, game-related push factors are somewhat important for travelers (M=3.16 SD=1.51) and non-travelers (M=3.17, SD=1.49), and does not significantly differ between the two groups, p=0.592. Finally, the data in table 4.20 shows that social interaction is neutral to both travelers (M=4.41, SD= 1.27) and non-travelers (M=4.53, SD=1.39), and there is also no significant between the two groups of participants, p = 0.977.

Table 4.20 Statistics for push factors-travelers and non-travelers

	Travelers (N=63)		Non-travelers (N=97)		t-test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Novelty	1.80	0.95	1.84	0.90	-0.229	156	0.820	Not significant
Game-related	3.16	1.51	3.17	1.49	-0.538	156	0.592	Not significant
Sociality	4.41	1.27	4.53	1.39	-0.029	156	0.977	Not significant

To conclude, participants who have visited at least one of the three countries (Italy, France, or the UK) and those who have not been to these countries in the last five years have the same perception of the importance of the novelty, social and gaming-related push factors for visiting these destinations. The largest difference in average importance between travelers and non-travelers is 0.12, which is not a meaningful difference on the scale used (from 1 to 7), so there is no difference in the push factors between travelers and non-travelers.

Demographics on tourism motivations

The second question is related to the impact of demographic characteristics on tourism motivation through the difference in terms of age and gender. Table 4.21 shows that novelty-related push factors are generally perceived as high push factors for all participants regardless of their age, but these push factors are perceived significantly more important for 18-25 years old (M=1.70, SD=0.71) compared to older participants 26 years old and above (M=2.10, SD=1.28), p=0.016. Game-related push factors are generally found to be somewhat important, with young participants 18 to 25 years old (M=2.88, SD=1.33) reporting they are significantly more important than for 26 years old and over (M=3.84, SD=1.74), p<0.001. The perceived importance of social interaction push factors in the two age groups is neutral, tending towards unimportant, and do not significantly differ between the two age groups, p=0.123. Note that from table 4.21, the biggest difference in average importance between 18-25 years old and 26 years is 0.96, so there is difference in novelty and game-related push factors between 18-25 years and respondents who are 26 and over. Novelty and game-related push factors are more important for young players than players who are 26 and over.

Table 4.21 Statistics for push factors and age

	18-25 (N=109)		26-over (N=45)		t-test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Novelty	1.70	0.71	2.10	1.28	-2.437	152	0.016	Significant
Game-related	2.88	1.33	3.84	1.74	-3.712	152	<0.001	Significant
Sociality	4.42	1.27	4.78	1.36	-1.553	150	0.123	Not significant

Table 4.22 reveals that novelty-related push factors are also perceived important push factors for all participants regardless of their gender and difference is not significant between men (M=1.81, SD=0.96) and women (M=1.77, SD=0.58), p=0.981. Additionally, the game-related push factors are somewhat important for male (M=3.12, SD=1.54) and female (M=3.56, SD=1.29), and does not significantly differ between the two groups, p=0.284. Finally, the data in table 4.22 shows that sociality is neutral to both men (M=4.48, SD=1.31) and women (M=4.86, SD=1.21), and there is also no significant difference between the two groups pf participants, p=0.279.

Table 4.22 Statistics for push factors and gender

	Male (N=137)		Female (N=15)		t-test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Novelty	1.81	0.96	1.77	0.58	0.137	150	0.891	Not significant
Game-related	3.12	1.54	3.56	1.29	-1.076	150	0.284	Not significant
Sociality	4.48	1.31	4.86	1.21	-1.087	148	0.279	Not significant

Gaming motivations and tourism motivations

The third question is whether gamer typologies have impact on Chinese Assassin's Creed players' tourism motivations. First, this is comparing players through independent t-test to see if there are significant differences within every gaming motivation. Table 4.23 illustrates that except for the pass time of the two groups of

players, the mean value of casual players is lower than the mean value of the hardcore players, and the rest of the hardcore players have a lower mean value than the causal players. All motivations other than killing time are important in the hardcore players. The independent sample t-test found that the p-value of each player type did not exceed 0.05, or even 0.01 (except passing time), indicating that the difference between causal players and hardcore players for each game motivation is significant.

Table 4.23 Independent t-test on gaming motivations and type of gamer

	Group of gamers	Mean	Std. Deviation	p value
Explorer	Hardcore	1.49	0.82	p< 0.001
	Casual	2.21	1.45	
Aggressive	Hardcore	2.87	1.33	p< 0.001
	Casual	4.86	1.68	
Escapist	Hardcore	1.83	1.06	p<0.001
	Casual	3.48	2.10	
Competitive	Hardcore	4.63	1.64	p<0.001
	Casual	6.00	1.35	
Fighter	Hardcore	2.35	1.05	p<0.001
	Casual	4.23	1.67	
Socializer	Hardcore	3.68	1.49	p<0.001
	Casual	5.63	1.54	
Pass time	Hardcore	3.61	1.60	p=0.04<0.05
	Casual	3.05	1.73	

Regarding travel push factors and different typologies of players, table 4.24 shows that novelty-related push factors are generally perceived as high push factors for all participants regardless of gamer typologies but these push factors are perceived significantly more important for hardcore players (M=1.67, SD=0.72) compared to casual player (M=2.06, SD=1.14), p=0.007. Game-related push factors are found to be somewhat important, with hardcore players (M=2.86, SD=1.29) reporting they are significantly more important than casual players (M=3.61, SD=1.72), p=0.002. The perceived importance of sociality in hardcore players (M=4.14, SD=1.30) is neutral, but significantly different from causal players (M=5.05, SD=1.22), p<0.001.

Table 4.24 Statistics for push factors and types of gamers

	Hardcore players		Casual players		t-test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Novelty	1.67	0.72	2.06	1.14	-2.709	158	0.007	Significant
Game-related	2.86	1.29	3.61	1.72	-3.158	158	0.002	Significant
Sociality	4.14	1.30	5.05	1.22	-4.307	156	p<0.001	Significant

Therefore, hardcore players are more likely to have higher importance in novelty, social and gaming-related push factors than casual players. There are differences in push factors between two types of players, and the biggest difference in importance is 0.91, so there is significant difference in push factors between hardcore players and casual players.

Hours & frequency on playing video games and tourism motivations.

The last research question is related to the impact of time and frequency of playing Assassin's Creed games on players' tourism motivations in terms of push and pull factors.

Table 4.25 shows push factors and players' hours and frequencies on playing Assassin's Creed games. The importance of novelty in more-involved players and less-involved players is very important, tending important, and does not significantly differ between more-involved players and less-involved players, p=0.883. Game-related push factors are found to be somewhat important, with more-involved players (M=2.88, SD=1.41) reporting they are significantly more important than for less-involved players (M=3.43, SD=1.55), p=0.020. The perceived importance of sociality in two player groups is neutral and does not significantly differ between the two-player group, p=0.080.

Table 4.25 Statistics for push factors and level of gaming involvement

	More-involved players (N=84)		Less-involved players (N=76)		t-test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Novelty	1.80	0.93	1.83	0.90	-0.148	158	0.883	Not significant
Game-related	2.88	1.41	3.43	1.55	-2.350	158	0.020	Significant
Sociality	4.66	1.25	4.28	1.42	1.762	156	0.080	Not significant

Hence, compared with more-involved players and less-involved players, both groups felt that novelty was important, and felt neutral on social interaction. However, in terms of games-related push factors, more-involved players have higher importance in tourism motivations than less-involved players. The next part is the independent sample t-test analysis of the pull factor in the four research questions.

4.5.2.2 Pull factors and independent T-Test

Travelers and non-travelers

Table 4.26 shows the local attribute is perceived an important pull factor for both groups of participants and the difference is not significant between travelers (M=2.43, SD=1.16) and non-travelers (M=2.57, SD=1.21), and the difference is not significant between travelers and non-travelers, p=0.478. Assassin's Creed-destination connection are nearly somewhat important for non-travelers (M=2.98, SD=1.46) and travelers (M=2.95, SD=1.36), and does not significantly differ between two groups, p=0.895.

Table 4.26 Statistics for pull factors- travelers and non-travelers

	Travelers (N=63)		Non-travelers (N=97)		T=test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Local attributes	2.43	1.16	2.57	1.21	-0.711	158	0.478	Not significant
Assassin's Creed-destination connection	2.95	1.46	2.98	1.36	-0.132	158	0.895	Not significant

In summary, participants who have been to Italy, France, or the United Kingdom within five years and those who have not been to these countries have the same feedback on the importance of the A/C-destination connection and local attributes. The biggest difference in average importance between travelers and non-travelers is 0.14, which is not a significant difference on the scale used (from 1 to 7), so there is no difference in the pull factors between travelers and non-travelers.

Demographics on tourism motivations

Among pull factors in age groups, table 4.27 shows that the destination attributes are the most important for participants aged 18-25 (M=2.50, SD=1.26) and participants who are aged 26 and above (M=2.55, SD=1.05), and does not differ between the two age groups, p=0.795. Assassin's Creed-destination connection is generally found to be somewhat important, with young participants 18 to 25 years old (M=2.70, SD=3.67) reporting they are significantly more important for 26 years old and over (M=3.67, SD=1.53), p<0.001.

Table 4.27 Statistics for pull factors and age

	18-25 (N=109)		26-over (N=45)		t-test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Local attributes	2.50	1.26	2.55	1.05	-0.260	152	0.795	Not significant
Assassin's Creed-destination	2.70	1.26	3.67	1.53	-4.046	152	<0.001	Significant

In gender group's pull factors, table 4.28 illustrates destination attributes are the most important for men (M=2.53, SD=1.23) and women (M=2.33, SD=0.91), and does not significantly differ between the two groups, p=0.537. The connection between Assassin's Creed and the destination is somewhat important for male (M=2.89, SD=1.39) and female respondents (M=3.62, SD=1.14). and there is also no statistically significant differences between the two groups of participants, p=0.052. Among genders, there is no significant difference between men and women in Assassin's Creed-destination connection and local attributes.

Table 4.28 Statistics for pull factors and gender

	Male (N=137)		Female (N=15)		t-test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Local attributes	2.53	1.23	2.33	0.91	0.619	150	0.537	Not significant
Assassin's Creed-destination connection	2.89	1.39	3.62	1.14	-1.956	150	0.052	Not significant

Gaming motivations and tourism motivations

Table 4.29 shows that local attributes are generally perceived as high pull factors for all participants regardless of the type of players but these pull factors are perceived significantly more important for hardcore players (M=2.36, SD=1.05) compared to

casual players (M=2.78, SD=1.36), p=0.032. Assassin's Creed-destination connection are found to be important, with hardcore players (M=2.64 SD=1.18) reporting they are significantly more important than for casual players (M=3.53, SD=1.57), p<0.001.

Table 4.29 Statistics for pull factors and types of gamers

	Hardcore players		Casual players		t-test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Local attributes	2.36	1.05	2.78	1.36	-2.169	158	0.032	Significant
Assassin's Creed-destination connection	2.64	1.18	3.53	1.57	-4.065	158	<0.001	Significant

Players who have many gaming motivations for playing Assassin's Creed games (hardcore players) are more likely to have location attributes and pull factors relating to Assassin's Creed games.

Hours & frequency on playing video games.

The final section is the time and frequency spent on playing the game and tourism motivations in terms of pull factors. From table 4.30, the importance of local attributes is generally important for more-involved players (M=2.54, SD=1.27) and less-involved players (M=2.48, SD=1.09) and there's no significant difference between two player group, p=0.757. The perceived importance of Assassin's Creed-destination connection in the two player groups is somewhat important, and does not differ between the two player groups, p=0.530.

Table 4.30 Statistics for pull factors and level of gaming involvement

	More-involved players (N=84)		Less-involved players (N=76)		t-test			
	Mean	St. Deviation	Mean	St. Deviation	Test statistic	df	p-value	Significant or not significant
Local attributes	2.54	1.27	2.48	1.09	0.310	158	0.757	Not significant
Assassin's Creed-destination connection	2.90	1.48	3.04	1.31	-0.629	158	0.530	Not significant

In summary, more-involved players and less-involved players both felt local attributes are important pull factors and two player groups also thought Assassin's Creed-destination connection was somewhat important.

4.6 Conclusion

This chapter has explained that most of the research participants are young male participants, from eastern China, most of them are students, and their monthly salary is less than 1,000 yuan (approximately 218 NZ dollars). Whether it is the motivation of playing games or the motivation of tourism, exploring new things and trying new things are the most important motivation factors, and local attributes are the most important pull factors. The various push factors of tourism motivations are divided into novelty, sociality and game-related, and the components of pull factor motivation are the location attributes and the connection between Assassin's Creed and destination. Players are also divided into two types: hardcore players and casual players, and into more-involved players and less-involved players. There is no difference between travelers and non-travelers in terms of tourism push and pull motivations. Young participants have higher importance in novelty and game-related push factors and the connection between Assassin's Creed and destination. Hardcore players have higher importance in travel push and pull motivations than casual players. More-involved players have higher importance for game-related push factors. The next chapter will discuss these statistical results in relation to key concepts in the literature.

5. Discussion

5.1 Introduction

This chapter discusses key findings and relates them to the literature on popular culture tourism motivation, video games and tourism. In section 5.2, the most important tourism push and pull motivations of travelers and non-travelers are discussed, and then the differences between the two groups in tourism motivation are described. Section 5.3 discusses the influence of age and gender on tourism motivation including the most important push-pull factors and the difference in tourism motivation factors. Section 5.4 discusses whether the typology of gamers (hardcore players, casual players, more-involved players, and less-involved players) affects tourism motivation. Section 5.5 is the conclusion which summarizes the findings of research.

5.2 Travelers and Non-travelers

Despite the majority of travelers and non-travelers not seeing Assassin's Creed as an important reason for their travel, the game did feature in their motivations. What is interesting is that Assassin's Creed is one of a number of reasons for many of respondents, but a main reason for some too. From the finding of thesis, the most important push factor for Chinese video game players who have been to Italy, France, and the UK in the last five years is novelty. This finding is similar to other studies which focus on other forms of popular culture tourism motivations. Novelty is one of the travel push motivations of film-induced travelers. Novelty was identified as a push factor in film tourism, including going to where the film scenes were shot. In popular culture tourism, novelty is one of the push factors for tourism (Fowler Jr, 2013; Kozak, 2002; Moscardo et al., 2001; Rewtrakunphaiboon, 2020). In this thesis, novelty is related to Assassin's Creed. The architectural style and humanistic environment that appear in the game are very different from China (see figure 1.2). Players will find the differences between countries and cultures when playing and it is also an opportunity to understand

the humanistic environment and historical characters of another country. Therefore, the players may desire novelty including exploring new and unknown world not just in the game but also being motivated to have novelty (broadening their horizons and experiencing something new) and memorable experiences in real life and travel to these locations. This result is similar to the motives identified in studies of Chinese tourists: they like to explore new environments and feel exotic cultures (Jiang, Scott, Tao, et al., 2019; Pung & Del Chiappa, 2018).

Besides novelty, the analysis results show that game-related push factor is an important factor for tourists. Tourism motivation related to popular culture was also regarded as one of the important tourism motivations in studies by Oviedo-García et al. (2016) and Liu et al. (2020). Players' love for Assassin's Creed games and their memories of playing Assassin's Creed games make them have motivations to travel to places where both games and reality exist. However, not all the thesis results are similar to previous popular culture studies. For example, in Liu et al. (2020)'s study of anime tourists, sociality was one of the main tourism motivations, however, in this study, sociality is not an important push factor for Chinese Assassin's Creed players. For a small group of travelers (25%) and non-travelers (31%), they identified Assassin's Creed was an important factor in their travel to Western Europe.

Regarding the pull factors, destination attribute is the most important pull factor for travelers. In the findings (see section 4.5.1.2), local weather, local culture, and local customs are classified as the location attribute, which indicates that those Chinese Assassin's Creed gamers that have travelled to France, Italy or the UK were attracted by the above three elements. In the previous studies of popular cultural tourism motivation, location attributes were also regarded as one of the pull factors. There is a connection between the attributes of the location and the motivation of visitors, and the physical environment also has an impact on the motivation of visitors.(Güzel & Güzel, 2017). The findings of this thesis also confirm previous research. Locations, tourist

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attractions, festivals and activities that are linked to A/C were important pull factors. For example, sites such as Notre Dame de Paris which features in Assassin's Creed Unity (see figure 1.2) and activity such as Venice Carnival that features in the plotline of Assassin's Creed II. These travelers being motivated by aspects of the games are similar to the findings in studies of other forms of popular culture. For example, in Oviedo-García et al. (2016) and Ng and Chan (2020)'s studies they found that the place which appears in the film is one of the main motivations for movie fans to travel to the place the scene was filmed. The thesis confirmed that the connection between popular culture and destination is one of the important tourism motivations.

The participants who have been to Italy, France or the United Kingdom in the last five years were termed "travelers" and respondents who have not visited these countries in the last five years were "non-travelers". Previous research has focused on motivations of travelers but has rarely explored what might motivate non-travelers. The research on non-traveler's motivation is an unexplored field as well as a knowledge gap in tourism (Dávid et al., 2020; McKercher, 2009). However, it is important to recognize that there are different but related concepts being considered: travelers are recalling their motives related to actual travel, while the non-travelers are considering the motives of possible future travel. The starting point was that these are different concepts, but from the result of t-test (see table 4.20 and 4.26), the research found there are no significant differences between travelers and non-travelers (the biggest difference in average importance is 0.14 on the 7-point scale, which is not a significant difference). For Chinese video game players, the tourism motivations for these Western European counties featured in Assassin's Creed are similar for the two groups. Whether they have travel experience or not, they have similar reasons to trigger their travel behavior. From the data of the thesis, it was concluded that there is no difference between travelers and non-travelers in their tourism motivations. Therefore, the discussion of travelers' tourism motivations can also be applied to non-travelers and in the research the two sets of data were combined.

5.3 Demographic Traits

In the previous articles about the tourism motivation of popular culture, some studies (Oviedo-García et al., 2016; Suni & Komppula, 2012) found differences in push-pull factor based on age and gender. In the findings of this thesis, there are also some differences in tourism motivation factors due to age and gender. In relation to age group, novelty, game-related push factors and the connection between Assassin's Creed and destination are the three more important motivation factors of participants aged 18 to 25, especially novelty (see table 4.21 and 4.27). This is similar to the young participants in (Suni & Komppula, 2012), they found that most of respondents who have novelty motivations are young. Young people think that novelty is the most important tourism motivation because they want to try new experiences (Suni & Komppula, 2012). As mentioned in 5.2, the elements of these Assassin's Creed games are new to Chinese players because the culture presented in it is completely different from China. From the demographic composition, most of the participants are young people and most of the employment are also students. Desiring to broaden their horizons and learning new knowledge are also their motivations for travel. Young people may be motivated by game-related push factors as young people think of video games as an interest. Since most of the participants are young people and students, they may have more free time than participants over the age of 26, and they might use this time to explore the various elements and details in Assassin's Creed, including the locations. After learning about most elements in the games and seeing more places and buildings where the games exist, there might be more motivation to visit the places in real life, so young participants think that the driving factors related to the games and the connection between Assassin's Creed and reality are more important.

In terms of gender, there is no difference between men and women regarding tourism push-pull factors. Both genders had novelty as the most important push factor. While

giving players the opportunity to explore other countries virtually, Assassin's Creed is also subtly motivating players to travel to their destinations. The new culture and customs which is different from China present in the game allow players to broaden their horizons while playing the game. Based on the above reasons, both male and female players who have played Assassin's Creed would like to have a trip in a place where both games and reality exist. Game-related push factors are second important motivation in both genders. Both share a desire to travel because of their love for Assassin's Creed and the memorable experiences during the game. When going to the place that appears in the game, they may associate experiences in game with reality. A fondness for a game also can promote tourism motivation because players want to see the scenes in the game with their own eyes. In the motivation pull factors, the location attribute is the most important for male and female. As for the connection between Assassin's Creed and destination, there is no significant difference between the two genders, and they both think that the pull factor is important. This finding is similar in previous articles (Jönsson & Devonish, 2008) they found that there is no difference in the motivation of men and women to travel to specific locations selected in their research, but other previous studies have shown that there are significant differences between men's and women's tourism motivations (Andreu et al., 2006). According to the demographic profile of respondents, the number of male players playing Assassin's Creed is far greater than that of female players. Therefore, the audience of the game is mainly male players. Although this study found no difference between male and female studies in Assassin's Creed's game and tourism motivation, it may be necessary to undertake further study to confirm whether gender leads to differences in video games and tourism motivation.

5.4 Typologies of Video Gamers

Regarding gaming motivations and tourism motivations, in chapter 4 (see section 4.5.1.3), according to gaming motivations, participants were divided into hardcore players and casual players. In other studies on typologies of gamers, hardcore players

are more focused on almost all aspects of the game, such as showing a deeper understanding of the industry and having more motivations when playing games. Hardcore players have very clear motivations for what to do in the game. Casual players just kill time by playing games, they only play games with a leisure and time-killing attitude (Fritsch et al., 2006; Schuurman et al., 2008; Tuunanen & Hamari, 2012). The findings of this thesis confirmed previous articles on player classification.

From the results of the t-test, there are significant differences between hardcore players and casual players in the push-pull factors of tourism. Among them, for hardcore players, all the push-pull factors in tourism motivation are more important than casual players, which shows that hardcore players are more likely to have stronger tourism motivation after playing Assassin's Creed games. For hardcore players, novelty is the most important push factor. When they explore in the game, there are various buildings and scenic spots which are different from Chinese architectural style in reality. Players can even climb these buildings in the game. They can also walk down the street in the game and feel the local cultural environment. When hardcore players play against others in the game, especially against real historical figures (such as Caesar Borgia in the Assassin's Creed Brotherhood), players can know the life stories of the characters. Therefore, it is new for players to find factors completely different from their own country in the game or completely different from Chinese humanistic elements, which makes players have novelty tourism motivations.

In addition, in the study of Dubois and Gibbs (2018), it mentions the travelers induced by specific video games. The inspiration of this kind of travelers comes from the Assassin's Creed series. Climbing, exploring, fighting and other factors in the game are the motivation to motivate players to travel and realize self-realization. Although Dubois and Gibbs (2018) do not specifically study the tourism motivation of Assassin's Creed players, this thesis finds that the push factor of tourism related to games and the pull factors of the connection between Assassin's Creed and destination are the

important tourism motivation of hardcore players. This is similar to Dubois and Gibbs (2018)'s findings, indicating that hardcore players are more likely to become travelers induced by specific video games.

Although the most important push and pull factors of casual players are novelty and location attribute, their push and pull factors on tourism motivation are lower than those of hardcore players, because casual players play Assassin's Creed only to kill time, and compared with hardcore players, they don't have as strong tourism motivation.

In the degree of participation (the hours and frequencies spent playing Assassin's Creed), both more-involved players and less-involved players consider novelty is the most important, while social interaction is considered as a neutral motivation. However, among the game-related push factors, more-involved players give higher importance to these motivations than less-involved players. This finding is similar to the previous articles where different participation levels in films had different motivations for popular culture tourism. From the research, it is found that the degree of participation in popular culture caused the difference in tourism motivations due to the time and frequencies from participants. (Rewtrakunphaiboon, 2020). It is precisely because the push factors related to the game are important for more-involved players that they spend more hours and frequencies playing Assassin's Creed. In table 4.19, frequency of Assassin's Creed games played by more-involved players was concentrated on three or more times playing the game per week. More-involved players were also concentrated in 6 to 10 hours or even more than ten hours in one week. More-involved players will find more details that less-involved players who are not so immersed in the game. In addition, long-term play will make players know more about the characters and the story of the game, so that players will go to the destination where both the game and reality exist because of their love for the characters and even the unforgettable memories left while playing. The purpose is to undertake a pilgrimage to the place where the game takes place. As described in the finding 4.5.2.2, both more-involved

players and less-involved players deem that destination attributes are important in pull factors. The pull factor of the connection between Assassin's Creed and destination is important for more-involved players, who find more places and historical buildings in reality through a longer time. Players who play games for a long time can feel and understand the atmosphere and story in the game, and when they are at the destination, they may reproduce the scenes they experienced when playing games. Players will find activities and festivals in Assassin's Creed and in reality (such as Venice Carnival in Assassin's Creed II). The more time a player feels the festive atmosphere in the game, the greater the possibility of going to the scene to feel it, which arouses the interest of many participating players.

In summary, novelty is the most important push factor for more-involved players and less-involved players. More-involved players have stronger game-related push factors than less-involved players. Local attributes and the connection between Assassin's Creed and destination are not different for the two groups.

5.5 Conclusion

This thesis discussed the results of the data analysis presented in Chapter 4. First, the tourism motivations of travelers and non-travelers were discussed. There is no difference in tourism push-pull factors for travel to the three countries, which indicates that Assassin's Creed players will have similar tourism motivations regardless of whether they have been to Italy, France and Britain in the previous five years or not. Secondly, the characteristics of the study population were discussed. According to age and gender, young participants have stronger tourism motivations and novelty related to games. On the other hand, there is no difference in tourism motivation between genders, even though other studies of tourism motivation have found differences between genders (Andreu et al., 2006). Finally, the game behavior was discussed. Hardcore players in Assassin's Creed (with various travel behaviors) have stronger tourism motivation than casual players. Moreover, more-involved players have stronger

tourism motivation related to games than less-involved players.

The next chapter is the conclusion of the research and the significance of this study. The limitations of this research and suggestions for future research are put forward.

6. Conclusion

6.1 Introduction

While there are some studies of video games and tourism, videos games and tourism motivations have rarely been studied (an exception is Dubois and Gibbs, 2018). This study uses tourism push-pull factors to analyze the impact of video games on tourism motivation. Data was collected through a two-stage survey of Chinese video gamers playing the Assassin's Creed game. 160 useable responses were analyzed using a range of quantitative analytical techniques. This chapter summarizes the findings of the study and provides an explanation of the limitations of this research, as well as some suggestions for future research on video games and tourism motivation.

6.2 Concluding the Research Questions

The focus of this research is to determine the impact of video games on the tourism motivation of Chinese video game players. The thesis used Assassin's Creed as a case study. The main motivations for Chinese video game players to play this game is to explore new and unknown world, do things that cannot be done in reality, and fight in the game. Assassin's Creed is one of a number of reasons for many of respondents, but a main reason for some too. Nevertheless, games did feature in the tourism motivations of these games. Four research questions were addressed in this study, and these will be answered in turn.

Q1. What is the difference between the travelers' tourism motivations and non-travelers' tourism motivations in Chinese Assassin's Creed players in terms of push and pull factors?

This thesis is based on the push-pull tourism motivation theory. The most important tourism motivation push factor for Chinese video game players is novelty and the most important pull motivation is the location attribute (see section 5.2). Therefore, the value

of push-pull theory in the thesis is to discover the internal motivation (push factors) and external motivation (pull factors) of Chinese video game players to travel to destinations that appear in the video games they play. Chinese video game players, whether they are travelers or non-travelers, have the similar push and pull tourism motivations, and there is no difference between the stated motivations of those who have travelled and those who has not.

Q2. Do gamer typologies have an impact on Chinese Assassin's Creed players' tourism motivations?

Compared to causal gamers, those with multiple motivations for playing Assassin's Creed (hardcore players) had stronger motivations to go to the Western European destinations linked to the Assassin's Creed game. They had stronger novelty, game-related push motivations, destination attributes and the connection between Assassin's Creed and the destination, and they were less motivated by sociality. The purpose of going to the destination is to visit where they explore, fight, improve their skills (gaming motivations in section 3.4.1.2) and other motivations for playing in the game (Dubois & Gibbs, 2018).

Q3. What impact does time and frequencies of playing Assassin's Creed have on players' tourism motivations in terms of push and pull factors?

In addition to hardcore players, more-involved players had stronger game-related push tourism motivation factors because of video games. Video games can generate tourism motivations because of high frequency and long period of time in the video games.

Q4. What is the relationship between gamers' demographic characteristics and tourism motivations?

Tourism motivations of Chinese male and female players are similar, but in the age group, younger Chinese Assassin's Creed players have stronger novelty, game-related driving factors, location attributes and connection of Assassin's Creed and destination,

they are less motivated by sociality.

6.3 Contributions of Research

This thesis provides new knowledge about video games and tourism. Although there have been studies on film and TV tourism, other forms of popular culture have rarely been explored. This thesis contributes to exploring the relationship between video game players and tourism. Although there is some research on video games and tourism, with the exception of Dubois and Gibbs (2018), the main focus is on tourism marketing and gamification of experience. This research is one of the few studies focusing on video game players and the tourism industry. The impact of video games on tourism motivations has the following points. This thesis demonstrates that whether Chinese video game players have travel experience or not, their tourism motivations are similar. In terms of age, young Chinese players have stronger game-related tourism motivations. Through promotion, design and management, destinations appearing in the game may be able to attract young players. Gender has no effect on tourism motivations in this research, but since the previous article found that gender has an impact on tourism motivation (Jönsson & Devonish, 2008), more empirical research is needed in the future. In addition, travel planners may pay more attention to hardcore players because they seek novelty, game-related push factors, destination attributes, and the connection between the game and the destination. Due to the love of the game and a broader range of motivations to play the game, hardcore players have stronger motivation to travel because of the game. In addition, novelty, game-related push factors, destination attributes and the connection between the game and the destination can enhance the travel experience of more-involved players and make them have more interests in video game-induced tourism. Novelty as the most important tourism motivation of hardcore players and more-involved players is consistent with other popular culture tourism literature (Oviedo-García et al., 2016; Suni & Komppula, 2012). The thesis found that game-related tourism motivation is also an important factor. It was consistent with some previous studies that include tourism motivation related to films and TV shows (Liu et

al., 2020; Oviedo-García et al., 2016) The difference is that video games are players actively immersed in the gaming experience, often for long periods of time. Movies and TV series are different, watching them is that audience passively instill the location image in the movie. In summary, Assassin's Creed can inspire the enthusiasm of players to travel, especially those who love this game, such as hardcore players and more-involved players.

6.4 Limitations and Further Research

There are several limitations. First of all, this thesis used only one game as a case study out of a large number of games and video game types. All the research questions in this thesis focused only on Assassin's Creed, an action-adventure game. In addition, the participants in this thesis are all Chinese players. The motivation for traveling of video game players from other countries is unknown. This thesis defined this as not travelling to the three locations in the previous five years. Non-travelers may have had other travel experiences or visited these places in the past. In addition, the reasons why they did not travel have not been studied.

Therefore, further research on video games and tourism motivation needs to analyze other specific games or certain types of games such as Tom Clancy's The Division, this game takes Manhattan, New York as the location and truly restores its street scenes and tourist attractions. Among the players, travelers and non-travelers, the influence of gender and age on tourism motivation, as well as the relationship between hardcore players and casual players, player participation and tourism need to be based on more games that deserve further research (e.g., other demographic characteristics, or their other travel experiences). More research is needed to find out whether the tourism motivation of players in different countries will be affected by Assassin's Creed or other video games, and whether the tourism motivation of video game players in other countries will be caused by the game. The reason why non-tourists among the players do not travel is also to be further studied.

6.5 Practical Implications

This research has practical implications for destinations that are interested in using games to attract players as visitors. Destination managers can identify places that are presented in video game and use technology and planning to make the place a kind of easter egg (this is a gaming term referring to interesting content hidden in the game specially left for the player). For example, the appearance of elements related to video games is suggestive and used to attract players' interest. Especially for players with multiple game motivations and more-involved players, managers need to ensure that relevant visitors can quickly identify locations that have also appeared in the game. Destinations can also cooperate with manufacturers that make video games to present more architectural and local features in the destinations in the game, allowing players to generate tourism motivation and decide to visit the destination. From the research, it is found that young players are more motivated to travel because of the game. Digital media such as games and the Internet can cover a large area of young people. The game provides an opportunity for players to learn about destinations in the virtual world, and the Internet also provides a place to post comments and opinions, so that players can be influenced by each other, potentially increasing their tourism motivation, and traveling to the destination. However, the above suggestions still need the attention of travel managers and game manufacturers. It is sometimes difficult for games to maintain the long-term popularity of a destination (for example, Assassin's Creed, each released game is in a different location), but the diversification of tourism products and the planning of giving video game destinations a unique experience can expand tourism market.

Appendices:

Appendix 1. Online questionnaire for survey participants

Are you aged eighteen or over ?

○ Yes
○ No

Which of these Assassin's Creed games have you played ? (Tick all that apply)

☐ 2
☐ Brotherhood
☐ Unity
☐ Syndicate
☐ None

Assassin's Creed 2, Brotherhood, Unity, and Syndicate are set in Italy, France, and the United Kingdom respectively. Which countries have you visited in the last 5 years ? (Tick all that apply)

☐ Italy
☐ France
☐ United Kingdom
☐ None

If there is no COVID-19, how interested are you in traveling to France, Britain and Italy?

Not very interested   Very interested

0 ○   1 ○   2 ○   3 ○   4 ○   5 ○   6 ○   7 ○   8 ○   9 ○   10 ○

The number of times you play Assassin's Creed games per week.

○ None
○ Once
○ Twice
○ Three time
○ Four times or over

How much time do you spend on playing Assassin's Creed games per week ?

○ None
○ 1-5 hours

○ 6-10 hours
○ more than 10 hours

The number of times you play other games per week.

○ None
○ Once
○ Twice
○ Three times
○ Four times or over

How much time do you spend on playing other games per week?

○ None
○ 1-5 hours
○ 6-10 hours
○ more than 10 hours

How important are each of following as reasons why you play the Assassin's Creed games ?

	Very important	Important	Somewhat important	Neutral	Somewhat unimportant	Unimportant	Strongly unimportan
To explore new and unknown world	O	O	O	O	O	O	O
To enhance my skill	O	O	O	O	O	O	O
To do things that I cannot do in reality	O	O	O	O	O	O	O
To be better than others	O	O	O	O	O	O	O
To communicate							

	Very important	Important	Somewhat important	Neutral	Somewhat unimportant	Unimportant	Strongly unimportan
with friends and others							
To fight in the game	O	O	O	O	O	O	O
To pass time	O	O	O	O	O	O	O

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I am interested in the reasons why people go to Western European countries such as France, Italy and the United Kingdom. For your visit to Western Europe, how important are each of following as reasons why you travelled ?

	Very important	Important	Somewhat important	Neutral	Somewhat unimportant	Unimportant	Very unimpor
Broadening my horizon	O	O	O	O	O	O	O
Experiencing something new	O	O	O	O	O	O	O
Having a memorable experience.	O	O	O	O	O	O	O
Expressing my love for Assassin's Creed	O	O	O	O	O	O	O
Fulfilling personal dream.	O	O	O	O	O	O	O
Enhancing my relationship with friends/relatives.	O	O	O	O	O	O	O
Showing off and feeling superior.	O	O	O	O	O	O	O
Relaxing and reducing stress.	O	O	O	O	O	O	O
Reflecting on memories of playing Assassin's Creed.	O	O	O	O	O	O	O
Feeling safe.	O	O	O	O	O	O	O

I am interested in the reasons why people go to Western European countries such as France, Italy and the United Kingdom. What you would like your travel to be in the Western Europe? Using the following scale to respond.

	Very important	Important	Somewhat important	Neutral	Somewhat unimportant	Unimportant	Very unimpor
Broadening my horizon	O	O	O	O	O	O	O
Experiencing something new	O	O	O	O	O	O	O
Having a memorable experience.	O	O	O	O	O	O	O
Expressing my love for Assassin's Creed	O	O	O	O	O	O	O
Fulfilling personal dream.	O	O	O	O	O	O	O
Enhancing my relationship with friends/relatives.	O	O	O	O	O	O	O
Showing off and feeling superior.	O	O	O	O	O	O	O
Relaxing and reducing stress.	O	O	O	O	O	O	O
Reflecting on memories of playing Assassin's Creed.	O	O	O	O	O	O	O
Feeling safe	O	O	O	O	O	O	O

I am interested in the reasons why people go to Western European countries such as France, Italy and the United Kingdom. What you would like your travel to be in the Western Europe? Using the following scale to respond.

	Very important	Important	Somewhat important	Neutral	Somewhat unimportant	Unimportant	Very unimpor
Broadening my horizon	O	O	O	O	O	O	O
Experiencing something new	O	O	O	O	O	O	O
Having a memorable experience.	O	O	O	O	O	O	O
Expressing my love for Assassin's Creed	O	O	O	O	O	O	O
Fulfilling personal dream.	O	O	O	O	O	O	O
Enhancing my relationship with friends/relatives.	O	O	O	O	O	O	O
Showing off and feeling superior.	O	O	O	O	O	O	O
Relaxing and reducing stress.	O	O	O	O	O	O	O
Reflecting on memories of playing Assassin's Creed.	O	O	O	O	O	O	O
Feeling safe	O	O	O	O	O	O	O

I am interested in what factors attract people to Western European countries such as France, Italy, and the United Kingdom. For your visit to Western Europe, how important are each of following as factors which attracted you to travel ?

	Very important	Important	Somewhat important	Neutral	Somewhat unimportant	Unimportant	Very unimportant

	Very important	Important	Somewhat important	Neutral	Somewhat unimportant	Unimportant	Very unimportant
Locations and tourist attractions which both Assassin's Creed and reality exist.	O	O	O	O	O	O	O
Re-living atmosphere in Assassin's Creed when seeing in reality.	O	O	O	O	O	O	O
Festival & Activities which are represented in Assassin's Creed.	O	O	O	O	O	O	O
Connection with the role in Assassin's Creed.	O	O	O	O	O	O	O
Personally experience the storyline of Assassin's Creed	O	O	O	O	O	O	O
Climate & Weather	O	O	O	O	O	O	O
Local culture	O	O	O	O	O	O	O
Local custom	O	O	O	O	O	O	O

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I am interested in what factors attract people to Western European countries such as France, Italy, and the United Kingdom. How important are each of the following as factors which might attract you to travel to Western Europe in the future?

	Very important	Important	Somewhat important	Neutral	Somewhat unimportant	Unimportant	Very Unimportant
Locations and tourist							

	Very important	Important	Somewhat important	Neutral	Somewhat unimportant	Unimportant	Very Unimportant
and tourist attractions which both Assassin's Creed and reality exist.	O	O	O	O	O	O	O
Re-living atmosphere in Assassin's Creed when seeing in reality.	O	O	O	O	O	O	O
Festival & Activities which are represented in Assassin's Creed.	O	O	O	O	O	O	O
Connection with the role in Assassin's Creed.	O	O	O	O	O	O	O
Personally experience the storyline of Assassin's Creed	O	O	O	O	O	O	O
Climate & Weather	O	O	O	O	O	O	O
Local culture	O	O	O	O	O	O	O
Local custom	O	O	O	O	O	O	O

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To what extent was Assassin's Creed games a reason for visiting Western Europe countries like France, Italy and the UK ?

Not a reason   The main reason

0○   1○   2○   3○   4○   5○   6○   7○   8○   9○   10○

To what extent is would Assassin's Creed game be a reason for visiting Western European countries like France, Italy, and the UK in the future?

Not a reason   The main reason

0○   1○   2○   3○   4○   5○   6○   7○   8○   9○   10○

Please explain your answer.

[   ]

Block 1

The following questions will be a profile of participants in the questionnaire, you can skip any questions if you don't want to answer.

What is your age group ?

○ 18-25
○ 26-33
○ 34-39
○ 40 or over

What is your gender ?

○ Male
○ Female
○ Other
○ Unwilling to answer

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What province are you from in China ?

[   ]

What is your highest qualification completed ?

○ Technical school degree
○ High school degree
○ College degree
○ Bachelor
○ Master
○ Doctorate
○ Other

What is your type of employment ? (Tick all that apply)

☐ Student
☐ Unemployment
☐ Part-time employment
☐ Full-time employment
☐ Retired

What is your personal income range per month ?

○ Less 1,000 CNY
○ 1,000 CNY-4.999 CNY
○ 5,000 CNY-9.999 CNY
○ 10,000 CNY or over

Which online communities did you do this questionnaire in?

☐ Assassin's Creed
☐ Ubisoft
☐ Steam
☐ None

Appendix 2. Recruitment Message

VICTORIA UNIVERSITY OF
WELLINGTON
TE HERENGA WAKA

Recruitment Message to be posted on Chinese online community site

Hello everyone, my name is Yanzhou Xu and I am a Master of Tourism Management student from Victoria University of Wellington in New Zealand. I am doing the research investigating the travel motivations of Chinese Assassin's Creed players. If you have played one or all of the following series in Assassin's Creed: 2, Brotherhood, Unity, and Syndicate, and are 18 years old or over, have visited the United Kingdom, France, or Italy in the last five years, then please complete my anonymous online questionnaire to help me with my research. Click here for more information and to complete the questionnaire. The survey is open until December 25.

Appendix 3. Information sheet for anonymous surveys

VICTORIA UNIVERSITY OF WELLINGTON
TE HERENGA WAKA

Video Games and Tourism: Travel Motivations of Assassin's Creed Players

INFORMATION FOR PARTICIPANTS for anonymous survey

You are invited to take part in this research. Please read this information before deciding whether or not to take part. If you decide to participate, thank you. If you decide not to participate, thank you for considering this request.

Who am I?

My name is Yanzhou Xu and I am a Masters student in Tourism Management at Victoria University of Wellington in New Zealand. This research project is work towards my thesis.

What is the aim of the project?

This project is investigating the travel motivations of Chinese Assassin's Creed players. Your participation will support this research by knowing what role the video game Assassin's Creed plays in the tourist motivation of Chinese Assassin's Creed players.

*When completing the questionnaire, you may need to recall scenes and places which feature in the game. If you are uncomfortable doing this, you are under no obligation to take part or answer all the questions.

This research has been approved by the Victoria University of Wellington Human Ethics Committee #0000029043

How can you help?

You have been invited to participate because you have played Assassin's Creed 2, brotherhood, Unity or Syndicate; ages are 18 or over; the members of Chinese online communities ; have visited the UK, France or Italy in the last five years. If you agree to take part, you will complete a survey. The survey will ask you questions about travel motivations and gaming behaviours. The survey will take you 10 minutes to complete.

What will happen to the information you give?

This research is anonymous. This means that nobody, including the researchers will be aware of your identity. Data you provide will be protected by password and only my supervisor and I can access the data. By answering it, you are giving consent for us to use your responses in this research. Your answers will remain completely anonymous and unidentifiable. Once you submit the survey, it will be impossible to retract your answer. Please do not include any personal identifiable information in your responses. Data and questionnaires will be destroyed two years after the end date of the project, 31/7/2023 .

What will the project produce?

The information from my research will be used in my Master's thesis. The thesis will be submitted for marking to the School of Management and deposited in the University Library and maybe published in academic journals and conference papers.

If you have any questions or problems, who can you contact?
If you have any questions, either now or in the future, please feel free to contact either:

Student:

Name: Yanzhou Xu

University email address:
xuyanz@myvuw.ac.nz

Supervisor:

Name: Karen Smith

Role: Professor

School: the School of Management

Phone: +64 044635721

karen.smith@vuw.ac.nz

Human Ethics Committee information

If you have any concerns about the ethical conduct of the research you may contact the Victoria University of Wellington HEC Convenor: Associate Professor Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-463 6028.

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