

MASTER THESIS

Communication Studies Marketing Communication and Design Faculty of Behavioural, Management and Social Sciences (BMS)

Tour operators' websites: Exploring the role of interactive videos to enhance customers' experience

Rebecca Ciglieri S2208539

Supervisors: Mirjam Galetzka Ruud Jacobs

April 15, 2020



ABSTRACT

The tourism industry is one of the most profitable sectors today. With the advent of the internet, it is even more crucial for practitioners in this sector to find new ways to differentiate themselves from competitors and offer a memorable experience from the customers' first moments of browsing the website. Drawing on insights from flow experience by Csikszentmihalyi (1990), the following research aims to investigate the use of interactive videos on tour operators' websites in the creation of an optimal experience and its impact on customers' behaviour. This research approaches the objectives by testing the effect of different interactive functions, such as hotspots providing information or clickable parts within the video with different branches that can be followed. In fact, the hypotheses have been tested by a 2 (hedonistic functions, yes or no) by 2 (utilitarian functions, yes or no) between subject research design among 172 participants. The results highlight that the interactive hedonistic function generates significantly greater enjoyment compared to the utilitarian function or a combination of the two. Subsequently, a marginal effect emerged of both the hedonistic interactive function and the utilitarian interactive function, taken individually, on the price sensitiveness of consumers, while the combination of the two functions was not significant. Furthermore, the findings show that enjoyment mediates the relationship between interactive video with hedonistic function and the behavioural outcome of price sensitiveness. This study aims to draw up suggestions for professionals and researchers to offer consumers increasingly satisfying experiences. For example, the optimal experience in the context of a tour operator online may be enhanced by offering interactive videos with hedonistic functions, increasing customers' enjoyment.

Keywords: optimal experience, travel, tour operator website, purchase intention, revisit intention, price sensitiveness, customer satisfaction

2 -

Table of Contents

1. Introduction

2. Theoretical framework	7
2.1 Optimal experience	7
2.2 Interactive videos	9
2.3 Effects of optimal experience	12

3. Method section

3.1 Research design	15
3.2 Participants	16
3.3 Materials	17
3.4 Pre-test study	22
3.5 Procedure	25
3.6 Measurements	26
3.6.1 Optimal Experience	27
3.6.2 Interactive Videos' Functions	28
3.6.3 Behavioural Outcomes	29

4. Results	
4.1 Analysis of Variance of the Optimal Experience	33
4.2 Analysis of Variance of the Behavioural Outcomes	34
4.3 Mediation Analysis	36

5. Discussion, Limitations and Future Recommendations	40
5.1 General Discussion	40
5.2 Limitations and Recommendations for Future Research	42

6. Final conclusion

7. References	46
8. Acknowledgements	51
Appendix A	52
Appendix B	60
Appendix C	63
Appendix D	66

1. Introduction

The tourism industry is one of the world's most profitable sectors (Luna-Nevarez & Hyman, 2012). In fact, this sector produces 10% of the global economy, reaching a total of about 150 billion dollars spent annually (Peltier & Sheivachman, 2018). In addition, the United Nations World Tourism Organization (UNWTO) estimates yearly growth for this sector of 3.3% (Kim, Lee, Shin, & Yang, 2017).

Today the internet is the main source of information for people intending to travel; 95% of people with an internet connection search for travel information online (Luna-Nevarez & Hyman, 2012). Therefore, websites' inherent ability to change the nature of tour operators' businesses by offering online services is undeniable (Hsu, Chang, & Chen, 2012). Although travel websites have gone from simply selling tickets and reservations to offering complete travel packages (Bilgihan & Bujisic, 2015), most travel packages and tours are still sold through physical stores (Peltier & Sheivachman, 2018). This is due to the lack of a pleasant online shopping environment (Bilgihan & Bujisic, 2015). Online consumer experience has become an indispensable element of the tourism sector (Gao & Bai, 2014). It can increase the outcomes deriving from the interaction between the individual and the e-environment (Gao & Bai, 2014). In fact, 24% of the worldwide proceeds from online bookings are lost due to an unsatisfactory user experience (Bilgihan, Nusair, Okumus, & Cobanoglu, 2015). Therefore, online travel agencies should focus on designing websites that lead to a memorable experience, not only to compete with physical travel shops, but also to attract that segment of consumers who prefer to organise their travel on their own (Ettis, 2017; Gao & Bai, 2014; Bilgihan, Nusair, Okumus, & Cobanoglu, 2015).

It is important to underline how the increasing number of online tour operator agencies and an increasingly saturated travel market suggest the need to differentiate oneself from competitors (Neuhofer, Buhalis, & Ladkin, 2012). Thanks to the technological progress, it is possible to find new, more effective solutions to offering better online optimal experiences (Gao & Bai, 2014). In fact, this research aims to study the effects of interactive videos on the creation of an optimal experience. The majority of the prior studies in this field have focused on the effect of flow on e-retail shops or e-commerce. The majority of the current studies, however, focus on the use of augmented reality (AR) in physical environments. In the field of tourism, however, there has been little research to verify whether the use of interactive videos

can influence consumer behaviour (Jung, Chung, & Leue, 2015). This technology allows a new level of interaction between clients and e-commerce (Al-Qeisi, Dennis, Alamanos, & Jayawardhena, 2014). In addition, this type of video allows the insertion of both hedonistic (video with different selectable paths that can be followed) and utilitarian functions (video with hotspots providing access to useful information), which enables the websites not only to satisfy both the consumer's need to obtain useful information but also to make their discovery of the chosen destination more engaging and pleasant (Tussyadiah & Fesenmaier, 2009).

This research aims to investigate the effects of communication and information technology and to expand the knowledge on the effects of interactive videos in the field of online travel websites. The primary goal is to discover whether the use of interactive videos has an influence on the creation of an optimal experience. In fact, optimal experience was operationalised by four concepts, extrapolated from the field of flow theory, which were the most suitable to be applied in the context of online tour operators. Specifically, this research investigates the effect of hedonistic and utilitarian functions on the creation of an optimal experience, in particular on customers' level of concentration and, if it can increase enjoyment, time distortion and telepresence while visiting the travel website. The secondary goal is to explore whether the optimal experience created by the interactive videos has subsequent effects on marketing-related variables, such as purchase intention, revisit intention, price sensitiveness and customer satisfaction.

The main relevance of this research is to investigate the extent to which interactive videos can enhance a memorable experience and its power to influence customers' behaviour, and consequently, to offer consumers increasingly satisfying experiences. Secondarily, this study aims to draw up guidelines and suggestions for professionals or those who want to approach the tourism sector, as well as for marketers and designers who want to use these findings in other contexts.

2. Theoretical Framework

The following section examines the theoretical background of this research. First, the flow experience is discussed and used as the basis from which to derive the essential mechanism involved in offering an optimal experience. Subsequently, it examines several studies on both interactive video technology and on behavioural outcomes deriving from an optimal online experience.

2.1 Optimal Experience

The tourism sector is among the most profitable industries in the world (Benyon, Quigley, O'Keefe, & Riva, 2014). As noted by Pine and Gilmore (2011), it is imperative for online tour operators to offer a memorable experience that sticks in the hearts and minds of clients (as cited in Bilgihan, Nusair, Okumus, & Cobanoglu, 2015). In addition, those who work in this sector must not commit themselves only to offering an optimal experience in the consumption phase of travel (Chen & Rahman, 2018). In fact, a good travel experience is defined by Tung and Ritchie (2011) as "an individual's subjective evaluation and undergoing (i.e., affective, cognitive, and behavioural) of events related to his/her tourist activities which begins before (i.e., planning and preparation), during (i.e., at the destination), and after the trip (i.e., recollection)" (Tung & Ritchie, 2011, p. 1369). Several authors of previous studies have relied on the concept of the flow state to define and measure an optimal experience online (Bilgihan, Nusair, Okumus, & Cobanoglu, 2015).

The notion of a flow experience was first elaborated upon by Csikszentmihalyi (1990). The author explained the concept as "a state in which people are so involved in an activity that nothing else seems to matter; the experience is so enjoyable that people will continue to do it even at great cost, for the sheer sake of doing it" (Csikszentmihalyi, 1990, p. 4). Flow theory was developed to uncover the underlying motivations of autotelic activities or actions with practical objectives that find in themselves and in their own development the primary purpose of their realisation (Nakamura & Csikszentmihalyi, 2002, as cited in Buil, Catalán, & Martínez, 2019).

The concept of flow is only one of the nine mental states identified by Csikszentmihalyi (1990), but flow is the most effective of them, since it occurs when an individual experiences total engagement in

the activity he or she is performing, a loss of the track of time and a strong and long-lasting motivation to continue the activity (Ettis, 2017; Hsu, Chang, & Chen, 2012; Kim & Thapa, 2018; Gao & Bai, 2014). The flow experience can be experienced on a daily basis: for example, while reading a magazine or practising a hobby (Buil, Catalán, & Martínez, 2019; Ettis, 2017; Hsu, Chang, & Chen, 2012; Kim & Thapa, 2018).

Over the years, the flow experience has been conceptualised in different ways, inserting and/or eliminating different constructs (Lee & Chen, 2010). Originally, Csikszentmihalyi (1990) identified nine dimensions: challenge–skill–balance, enjoyment, clear goals, control, immediate feedback, autotelic experience, time transformation, concentration and telepresence. Subsequently, flow experience was operationalised by Trevino and Webster (1992) using only four constructs: control, concentration, curiosity and intrinsic motives. Ghani and Deshpande (1994) highlighted that enjoyment and concentration alone are sufficient to create a state of flow. In 1996, Hoffman and Novak identified two primary dimensions to create the flow experience online: attention and skills-challenge-balance. In addition, the researchers identified two secondary dimensions: telepresence and interactivity. From their research it emerged that these secondary dimensions alone cannot induce the state of flow. In fact, they have the function of amplifying the intensity of the flow state induced by the primary dimensions. Finally, Koufaris (2002) operationalised flow with enjoyment, control and concentration.

In recent years, studies about flow experience in the online environment have used even fewer constructs to operationalise it (Domina, Lee, & MacGillivray, 2012). In fact, Ghani, Supnick and Rooney (1991) showed that enjoyment and concentration are the only two essential prerequisites for a flow experience. Subsequently, Lee and Chen (2010) conceptualized the flow state with four dimensions: enjoyment, concentration, time distortion and telepresence on the base of Novak, Hoffman, and Yung's work (2000).

In this study the optimal experience was operationalised by four concepts extrapolated from the flow experience. These dimensions were most commonly used in previous studies that investigated interactions between humans and computers. The first dimension borrowed from the flow experience is concentration. It can be defined as the degree of focus a person has when completely engaged in performing a task to the extent that nothing else counts (Ettis, 2017). Domina, Lee and MacGillivray (2012) defined this flow construct as "the intensity of focus of attention given to the task at hand" (Domina,

Lee, & MacGillivray, 2012, p. 614). Previous studies have shown that concentration is fundamental to the provision of an optimal experience; in fact, it has an effect on technology adoption, revisit intention and on the customers' will to purchase in a computer-mediated environment, or CME, (Domina, Lee, & MacGillivray, 2012). It is therefore foreseeable that the use of interactive videos, which require direct and active user interaction, will affect concentration, even in the online travel domain. In fact, concentration is a characterising element of computer-mediated activities (Ghani, Supnick, & Rooney, 1991). The second dimension of creating an optimal experience is enjoyment. It can be explained as the extent to an experience is perceived as entertaining, independent of any performance consequences (Ettis, 2017). This dimension was chosen due to the fact that consumers sometimes browse the internet just for fun (Gao & Bai, 2014). In fact, especially in an online environment, users evaluate their experience not only on the basis of its utilitarian aspects, but also on the level of its perceived entertainment (Ettis, 2017). Enjoyment is relevant in the travel sector. In fact, the entertainment generated by interactive videos can be expected to influence the creation of an optimal experience. The third dimension, time distortion, is an indicator of whether a person is experiencing flow. It can be defined as the feeling that time is passing faster because the user has lost track of time. This occurs when the user is completely absorbed by what he or she is experiencing (Novak, Hoffman, & Yung, 2000). For this reason, it is expected that the perception of time passing quickly, as a consequence of the interactivity of the videos, is an indication of an optimal experience also in the online travel domain. The final dimension, telepresence, relates to the feeling of being in the virtual context instead of the physical world (Novak, Hoffman, & Yung, 2000; Pelet, Ettis, & Cowart, 2017). This dimension was defined as an important attribute in the CME (Pelet, Ettis, & Cowart, 2017). Telepresence is relevant in the field of tourism. In fact, making the consumer feel as if he or she is already visiting the desired destination, thanks to the atmospheric cues of the website, is expected to influence the online experience (Pelet, Ettis, & Cowart, 2017).

2.2 Interactive Videos

The progressive adoption of information and communication technologies (ICT) in the travel sector has also changed the modalities by which tourists plan and consume travel (Martins et al., 2017; Neuhofer, Buhalis, & Ladkin, 2012). Thus, from this perspective, it is imperative to be the first choice in customers' minds in order to retain market share (Hudson & Ritchie, 2009, as cited in Neuhofer, Buhalis, &

Ladkin, 2012) and to offer an outstanding and memorable experience (Morgan, Lugosi & Ritchie, 2010, as cited in Neuhofer, Buhalis, & Ladkin, 2012). Tussyadiah and Fesenmaier (2009) affirmed that an optimal experience can be achieved by the use of technology (Neuhofer, Buhalis, & Ladkin, 2012). In fact, ICT can be used to more convincingly present services to consumers (Yim, Chu, & Sauer, 2017) and can help companies create customised experiences (Martins et al., 2017). For these reasons, Ku and Chen (2015) stated that only the smart use of ICT to create an interactive and immersive experience can ensure a company's competitive survival in the travel market (Martins et al., 2017).

In addition, in the online travel domain, consumers not only browse different websites to gather information about a new destination, the prices for accommodation and transport or find a travel deal, but also for pure fun and entertainment (Gao & Bai, 2014). As confirmation, Tussyadiah and Fesenmaier (2009) argued that the experience of travel itself "involves a hedonistic aspect" (Tussyadiah & Fesenmaier, 2009, p. 26). From their study of the mediating role of online videos on travel experience, emerged that people have the desire to experience new and pleasurable things. Indeed, the videos are able to satisfy this desire by generating fantasies and transporting the mind of the user within the locations shown in the video (Tussyadiah & Fesenmaier, 2009). In addition, previous studies have shown that people also travel to learn or amplify their knowledge about the culture and heritage of a new country (Poria, Reichel, & Brian, 2006, as cited in Kim, 2014). For this reason, it is possible to state that tour operator websites should offer both utilitarian and hedonistic values (Bilgihan & Bujisic, 2015; Ettis, 2017; Gao & Bai, 2014). Utilitarian functions are more practical and are connected to the achievement of a goal; they are "related to a necessity rather than to recreation" (Scarpi, 2012, p. 54). Utilitarian functions include price comparison, a comprehensive explanation of services and an easy-to-use tool to find information on the website (Bilgihan & Bujisic, 2015). Whereas, hedonistic functions are connected with the pleasure of navigation and make the website experience more entertaining and fun rather than goal oriented. Thus, hedonistic functions can be linked, for example, to a new and unexpected way of purchasing or to the use of images, videos, colours or music (Bilgihan & Bujisic, 2015).

Utilitarian and hedonistic values are fundamental to positively changing tourists' attitudes towards the service offered (Bilgihan & Bujisic, 2015; Ettis, 2017) and creating an optimal experience (Gao & Bai, 2014). In the context of a tour operator website, an optimal experience is expected to be experienced by consumers with complete and playful immersion (Gao & Bai, 2014). Different studies on e-commerce have shown how an optimal experience can increase, for example, impulse purchasing and the predisposition to pay higher prices (Buil, Catalán, & Martínez, 2019; Ettis, 2017; Hsu, Chang, & Chen, 2012).

In this research it was decided to investigate the influence of interactive videos. The choice of this specific technology is linked to the fact that it is not extremely expensive, in contrast, for example, to the glasses for AR and, furthermore, interactive videos do not require the use of any additional accessories to work (Kazanidis, Palaigeorgiou, Papadopoulou, & Tsinakos, 2018). Unlike traditional videos, which move in a linear way, interactive videos give the viewer the opportunity to interact with the video through the use of the mouse or dragging with the finger (Kazanidis, Palaigeorgiou, Papadopoulou, & Tsinakos, 2018). Interactive videos are characterised by different functionalities that can fulfil the need to have both utilitarian and hedonistic values: for example, hotspots with drop-down menus providing useful information and data input fields that can be inserted (utilitarian functions) or even clickable parts within the video with different paths that can be followed and 360° views (hedonistic functions) (Trautman, 2019). Hedonistic functions focus on entertainment experiences and are related to the fun-based aspects of ICT (Bilgihan & Bujisic, 2015). Furthermore, it is important to underline how the videos in themselves have a hedonistic nature. Tussyadiah & Fesenmaier (2009), in their research about the mediating role of linear videos on travel experiences, demonstrated how videos can "arouse mental pleasures and general fantasies and daydreams" (Tussyadiah & Fesenmaier, 2009, p. 28).

The use of this technology has several advantages: for example, it increases engagement. In fact, linear videos are used in a passive way, while interactive videos request an active engagement of the user, who can interact with the different interactive elements present in the video. For these reasons, the chosen technology increases attention and engagement, resulting in a dramatic 591% spike in user activity and 32% more memorability (Soares de Lima, Feijó, & Furtado, 2018). In fact, Van Noort, Voorveld and Van Reijmersdal (2012), in developing the empirical research of Hoffman and Novak (1996), demonstrated how the level of interactivity is directly proportional to the intensity of the experience (Van Noort, Voorveld, & Van Reijmersdal, 2012). For these reasons, the following were hypothesised:

H1: The use of utilitarian function in interactive videos increases concentration, enjoyment,

time distortion and telepresence compared to linear videos.

H2: The use of hedonistic function in interactive videos increases concentration, enjoyment, time distortion and telepresence compared to a utilitarian function or linear videos.

H3: The combined effects of hedonistic and utilitarian functions in interactive videos create the largest effect on concentration, enjoyment, time distortion and telepresence compared to a utilitarian function, a hedonistic function or linear videos.

2.3 Effects of Optimal Experience

The online consumer experience (OCE) can be defined as a cognitive response to an e-environment (Bhattacharya & Srivastava, 2018). In addition, Bhattacharya and Srivastava (2018) highlighted the importance of the cognitive online experience, which is linked to the optimal experience. In fact, several studies have shown that the design of the optimal experience has an effect on customers' purchase intention and revisit intention and helps differentiate the business from its competitors (Bhattacharya & Srivastava, 2018; Kandampully, Zhang, & Jaakkola, 2018).

For example, Hsu, Chang and Chen (2013), in their study on the online purchasing behaviour on Yahoo Shopping Centre, highlighted that a flow experience increases purchase intention. The authors suggested developing e-commerce so that users can customise their shopping experiences (Hsu, Chang, & Chen, 2013). In addition, Hsu, Chang and Chen (2013) underlined that the pleasantness of navigation is fundamental to the intention to purchase and that the website must favour the concentration of users who are often surrounded by distractions. Finally, the authors highlighted that the flow experience also influences impulse purchases (Hsu, Chang, & Chen, 2013). Koufaris (2002), in his study on the effect of the technology acceptance model and the flow experience on customer behaviour in the online environment, showed that purchases are influenced by the flow experience (Koufaris, 2002). On the other hand, in contrast to the study conducted by Hsu, Chang and Chen (2013), the results on impulse purchases were inconclusive, showing no significant effect of the flow experience (Koufaris, 2002). Thus, in the current research, it was hypothesised that the flow experience can have a positive effect on customers' purchase intention on a travel website.

H4: An optimal experience mediates the relationship between interactive videos (with a utilitarian function, a hedonistic function and the combination of both) and purchase intention.

Concerning revisit intention, Ettis (2017) used two versions of a fake online store dedicated to hightech items to test whether the use of specific colours (blue or yellow) could induce a flow experience. He found that blue created more flow experiences and consequently also increased revisit intention (Ettis, 2017). In addition, Cyr et al. (2005) and Kabadayi and Gupta (2005) hypothesised that a flow experience would make it more likely that consumers would revisit the website (as cited in Hsu, Chang, & Chen, 2012). Finally, Koufaris (2002) tested the effect of flow on revisit intention. He stated that the desire to return to a website is connected to the pleasure the consumer feels while visiting it (Koufaris, 2002). In addition, Koufaris (2002) underlined how this feeling is determined by the possibility of interacting with the site.

H5: An optimal experience mediates the relationship between interactive videos (with a utilitarian function, a hedonistic function and the combination of both) and revisit intention.

Hsu, Chang and Chen (2012), in their study of the relationship between flow experience and customer satisfaction, stated how the flow experience influences purchasing decisions. In addition, they emphasised how the flow experience can increase perceived quality, thereby making consumers less sensitive to prices and thus more willing to pay more (Hsu, Chang, & Chen, 2012).

H6: An optimal experience mediates the relationship between interactive videos (with a utilitarian function, a hedonistic function and the combination of both) and price sensitiveness.

Finally, different authors have investigated the effect of experience on customer satisfaction, which can be define as "customer's fulfilment response, or the degree to which the level of fulfilment is pleasant

or unpleasant" (Qu, 2017, p. 15). Qu (2017), in his study on theme parks, demonstrated how an optimal experience increased customer satisfaction by 70%. In addition, Chen and Lin (2012) have highlighted in their research how the experience created with an immersive 3D technology, compared to a 2D one, has a greater influence on satisfaction (Chen & Lin, 2012). For these reasons the following was hypothesised:

H7: An optimal experience mediates the relationship between interactive videos (with a utilitarian function, a hedonistic function and the combination of both) and customer satisfaction.

When the users browse a tour operator's website, they seek both a pleasant experience and information (Bilgihan & Bujisic, 2015; Ettis, 2017; Gao & Bai, 2014). For these reasons it was hypothesised that an interactive video with both functions is the most effective of the experimental conditions. It was also hypothesised that the hedonistic version is more effective than the utilitarian one. Indeed, Steffes and Duverger (2012) have shown in their study that the use of hedonistic videos compared to the utilitarian ones have a bigger effect on long-term memory and on mood. Thus, it is expected that there will be similar results for the dependent variables examined in this research. Finally, the utilitarian condition is considered the less effective one compared to the other interactive versions, but more effective that the control condition.



Figure 1. Research Model

3. Method Section

The aim of this research was to investigate the extent to which the use of interactive videos on tour operators' websites creates an optimal experience and, accordingly, the extent to which it has an effect on customer satisfaction, purchase intention, revisit intention and price sensitiveness. To do so, the hypotheses were tested by the mean of a 2 (hedonistic function, yes or no) by 2 (utilitarian function, yes or no) research design in which each candidate was randomly assigned to one of the four manipulations.

The following section presents the candidates, the manipulated materials, the pre-test results and the measurements used in the research.

3.1 Research design

The experimental design (see Figure 1) was characterised by four dependent variables: customer satisfaction, purchase intention, revisit intention and price sensitiveness. In the following study, the optimal experience, based on the four dimensions of flow (concentration, enjoyment, time distortion, and telepresence), was considered a mediating variable. Finally, the design was based on two independent variables: the hedonistic and utilitarian functions of interactive videos. Therefore, the research was based on a 2 (hedonistic function, yes or no) by 2 (utilitarian function, yes or no) experimental design, which created four different conditions (see Table 1).

Table 1

Experimental conditions

Components	Utilitarian function (Yes)	Utilitarian function (No)
Hedonistic function (Yes)	Interactive video with both hedonistic and utilitarian functions	Interactive video with hedonistic function
Hedonistic function (No)	Interactive video with utilitarian function	Linear Video

3.2 Participants

The participants for the study were randomly selected on a voluntary basis. The candidates were reached by a convenience sampling strategy. In fact, the experiment questionnaire was sent at first to the researcher's relatives, friends and university colleagues via email or via phone message applications. Later it was shared in various social media groups. In addition, the experiment's candidates had no specific pre-requirement characteristics. Only candidates with an age under eighteen years were excluded from the experiment.

A total of 563 people participated in the experiment, but incomplete questionnaires (N = 302) were excluded from the analysis. In addition, candidates who took under 6 minutes (N = 45) and the ones who took more than 25 minutes (N = 44) to complete the questionnaire were excluded from the analysis. This

Table 2

Both interactive functions U		Jtilitarian interactive function	
Gender	Age	Gender	Age
Male = 17	N = 39	Male = 12	N = 39
Female = 21	Mean = 24.8	Female = 25	Mean = 25.1
NA = 1	SD = 5.1	NA = 2	SD = 6.7
Hedonistic interactive	function	Linear video	
Hedonistic interactive Gender	function Age	Linear video Gender	Age
Hedonistic interactive Gender Male = 23	function Age N = 49	Linear video Gender Male = 16	Age N = 45
Hedonistic interactive Gender Male = 23 Female = 25	function Age N = 49 Mean = 24.8	Linear video Gender Male = 16 Female = 28	Age N = 45 Mean = 25.9

Demographic profile per experimental condition

choice is due, on one hand, to the fact that it took more than six minutes to at least partially view the video and complete the questionnaire. On the other hand, many participants took several hours or days to complete the experiment. This means that the final sample size comprised 172 participants and that each experimental condition (interactive video with both hedonistic and utilitarian functions, interactive video with hedonistic function, interactive video with utilitarian function and linear video) was viewed respectively by 39, 49, 39 and 45 candidates.

The sample was composed of 68 men (39%), 99 women (58%) and 5 candidates (3%) that preferred not to identify their gender, with a mean age of 25.2 (SD = 7.5). Specifically, the candidates' gender was equally distributed only for the experimental condition with hedonistic function. While, in the other three conditions, the number of female candidates was greater than the male ones (see Table 2). The participants' country of origin was mainly the Netherlands (19%), followed by Italy (17%), Germany (11%) and the United Kingdom (7.6%). Furthermore, regarding level of education, the majority (38.4%) stated they had obtained a bachelor's degree, 31.4% a high school diploma and 25.6% a master's degree. With regard to the participants' travel habits, 13.4% stated that they travelled monthly, 42% said that they travelled once a year and 42.4% travelled twice a year. In addition, the majority affirmed that they organised their travel on their own (87.2%), and only 5.8% relied on a tour operator online. Finally, it was found that 83% of the involved candidates did not have a favourite travel website.

3.3 Materials

The stimuli consisted of four versions of the same tour operator's website. To avoid compromising the research results, a fictitious tour operator, called Wanderlust, was created. The decision was made so that the participants were not conditioned by their personal prior experience with existing brands. In addition, Wanderlust had Mongolia as its main destination.

The four websites were designed the same way. Indeed, all the versions opened with the identical welcome page (see Figure 2). This page explained both the meaning of the word Wanderlust and the brand philosophy. The fictitious Wanderlust tour operator organises customised travels, on the basis of the clients' need and preferences. This choice was made due to the limited time and material at the

researcher disposal. In addition, a clickable button was presented that took users to the 'destinations' page. Our destination page (see Figure 3) showed three different destinations: China, Mongolia and Nepal. Consistent with the instructions in the questionnaire, only Mongolia's button was clickable. The Discover Mongolia page was different for each condition, containing different information on how to use the interactive functions.

← → C iii wanderlust0	U1.wedstarts.com/index.html	© ☆ 🗹	
and the second second	Wanderlust is a strong desire or urge to travel and explore the wor	ld.	
	Wanderlust is a tour operator tailor made for you. Choose where you would like fall in love with our breath-taking destinations. We are ready to satisfy your urge t create a custom made journey based on your preferences and need	to go and start to o explore, we will ls.	
The second se	Just pick a destination and we will take care of the rest.	all and a second	
Contraction of the second	Our Destinations		100
		the second	
Create a free website. blog	va. or notine store with WebStarts.com		
https://wanderiustoli.webstard.com/abi			

Figure 2. Welcoming page



Figure 3. Our destination page

The control condition was characterised by a linear video (see Figure 4). In this website version, the Discover Mongolia page contained just a simple quote and an incitement to watch the video. A button was present which redirected to the linear video about Mongolia.



Figure 4. Linear video

The first experimental condition was characterised by an interactive video with a utilitarian function. In this case, the Discover Mongolia page contained a brief disclaimer which explained to the users the function of the video. The users were told that they could click on the red hotspot (see Figure 5) to access the information. From the information screen (see Figure 6) they could click on the green hotspot to go back to finish the video or click the play button to go forward with the video.

In fact, the interactive video was characterised by the presence of clickable hotspots within the video through which users could read more information about the locations shown (see Figure 6). Utilitarian functions must be useful and functional to the achievement of a goal (Mikalef, Giannakos, & Pateli, 2013). Thus, in this specific case, interactive hotspots with information were chosen due to their ability to communicate, in an effective way, key information about the destination the users would like to visit.



Figure 5. Utilitarian video Hotspot



Figure 6. Information screen

The second experimental condition contained an interactive video characterised by a hedonistic function. Concerning the 'Discover Mongolia' page, it also contained a disclaimer on the additional feature of the video. In this case, users were informed that they had to choose what they wanted to see by clicking on one of the four branches available (see Figure 7).

The interactive video contained clickable features that guided the user through different branches. These branches showed the various locations: for example, the user had to choose whether to click between the nature path or adventure path option. Hedonistic functions are associated with the pleasure of an experience (Mikalef, Giannakos, & Pateli, 2013). For this reason, video with different branches was chosen to allow the users to travel throughout the video and to control the narrative. Therefore, associating the vision of the video to a game experience, in order to let the users experience the emotions and entertainment of the destination.



Figure 7. Hedonistic condition branches

Finally, the last experimental condition was characterised by an interactive video with both utilitarian and hedonistic functions. The Discover Mongolia page was characterised by a disclaimer that combined the ones present in the other versions (see Figure 8). Indeed, in this version, the video contained clickable hotspots within the video to get more information as well as different viable branches.



Figure 8. Discover Mongolia page

3.4 Pre-test Study

A pre-test was carried out with a think-aloud protocol (see Appendix A). This method was chosen in order to identify any problems: in particular, to verify whether the interactive elements included in the videos were also perceived as hedonistic or utilitarian from the customers' point of view.

To do so, twenty participants were invited to take part in the pre-test. All candidates were selected from among the researcher's friends or relatives. To facilitate the participation of all respondents, six sessions out of twenty were carried out via Skype. In addition, each candidate spent around twenty minutes to complete the study. At first, the participants were seated in front of a laptop and the researcher read to them the consent form. Once she had received their consent, she explained the aim of the pre-test and the task they had to perform. In fact, the respondents had to see, in random order, two videos on Mongolia. The videos consisted of the version with both the interactive functions and the linear version. In addition, the candidates were asked to speak out loud and express their thoughts while performing the task. Once they finished watching the videos, they were asked to answer specific questions.

The comments expressed during the study were consistent with each other (see Appendix B). Concerning the linear video, it was evaluated as too long, slow at times and a bit boring. In addition, it was judged to be in line with the advertising videos present on other tour operator websites that the candidates had visited before. On the other hand, those who had preferred the linear version commented that it provided a more general overview of Mongolia and a stronger sense of continuity than the other video. With respect to the interactive video, the candidates considered that version more innovative, and the interactive functions were judged as unexpected. In fact, the possibility of being able to choose which branch to see was considered amusing by the majority of the respondents. Indeed, the hedonistic function was associated with the act of playing a game. In addition, they said that the presence of different branches increased their concentration, since the candidates were curious about what would happen next. Finally, the presence of information within the video was evaluated functionally by the candidates to better understand what they were watching.

After the participants finished watching both videos, they were asked to answer, on a scale of one to seven (1 = strongly agree; 7 = strongly disagree) different statements about the hedonistic and utilitarian nature of the videos as well as about the four constructs of the optimal experience. In total, fifteen of the twenty respondents preferred the interactive video.

With regard to the hedonistic aspect of the video (see Appendix B), it was revealed that 80% of the candidates 'somewhat agreed' or 'strongly agreed' that the interactive video was more fun than the linear video (M = 3.3; SD = 1.16), while 85% of them disagreed with the statement 'the video was fun' for the linear video (M = 5.2; SD = 1.3). On the other hand, regarding the entertaining category, both videos were evaluated as entertaining. For the interactive version (M = 2.1; SD = 1.8), 70% of the candidates

agreed that the video was entertaining, 15% strongly agreed and 10% somewhat agreed, while in the linear version (M = 3.45; SD = 1.6), 60% either 'strongly agreed' or 'somewhat agreed that the video was entertaining.

With respect to the utilitarian aspect of the videos (see Appendix B), 100% of the participants chose a judgement between 'strongly agree' and 'agree' for the informative value of the interactive video (M = 1.1; SD = 0.31), while only 10% of the respondents found the linear video informative (M = 5.8; SD = 1.24).

Similarly, 85% of the candidates considered the interactive video functional (M = 1.8; SD = 1.42) with respect to discovering Mongolia as a travel destination. On the other hand, the evaluation for the linear video (M = 4.8; SD = 1.22) were inconsistent; indeed, 50% of the respondents were between the 'somewhat disagree' and 'strongly disagree' choices in considering the linear video functional, 15% expressed a neutral assessment and 35% agreed in some way.

During the pre-test, the candidates were also asked questions about the four constructs of the optimal experience. First, they were asked to evaluate on a 7-point scale whether they had enjoyed the videos (see Appendix B). Concerning the interactive video (M = 1,55; SD = .87), all respondents stated that they had enjoyed the video, while in the case of the linear video (M = 4.15; SD = 1.75), 65% of the candidates enjoyed it, 15% expressed a neutral opinion and 20% did not like it. In the case of the second optimal experience construct, concentration (see Appendix B), only 10% of the candidates expressed a neutral opinion, while the remaining 90% responded that they felt between agreement and strong agreement with the statement that they were completely focused while watching the interactive video (M = 1.85; SD = .87). Concerning the linear video (M = 3.5; SD = 1.36), the answers were more varied. In fact, 55% of the candidates chose responses between 'agree' and 'somewhat agree' and the remaining 45% disagreed. Concerning the time distortion construct (see Appendix B), only 5% of the respondents disagreed that they had lost track of the time while watching the interactive video (M = 2.1; SD = .91). On the other hand, 70% of the candidates expressed disagreement with having experienced time distortion while watching the linear version (M = 4.7; SD = 1.41). Finally, with regard to the last optimal experience construct, telepresence (see Appendix B), the interactive video (M = 3.2; SD = 1.54) received 60% agreement compared to 25% with the linear video (M = 4.65; SD = 1.4). In both the

versions, 20% of the participants expressed a neutral judgement.

On the basis of the comments received during the pre-test, it was concluded that the presence of different branches was perceived as hedonistic as well as that the presence of information was perceived as utilitarian from the participants' point of view. Furthermore, on the basis of the results obtained, some changes were made to the videos. First, a more comprehensive description of the interactive functions was added to the 'discover' page of the websites. Concerning the hedonistic function, the time interval in which the user could choose which branch to see was increased. Finally, with regard to the utilitarian function, almost all candidates, found it to be negative that, once they clicked on the hotspot to read the information, they could not go back to the video. This has made them refrain from clicking it. For this reason, a new hotspot in the information screen was added that allowed the viewers to go back to the beginning of the branch. In addition, the dimension of all hotspots was reduced. Finally, despite the various negative comments recorded for the control condition, it was decided not to change its length or assembly. This decision was made so that the only difference between the four experiment conditions was the addition of more interactive functions.

3.5 Procedure

The study was conducted by means of an online experiment. A questionnaire (see Appendix D) created in Qualtrics contained both the experimental condition links and the survey. The participants were reached via messenger applications, such as WhatsApp and email, as well as by posting the survey link in some travel-dedicated groups on Facebook. The survey was divided into eight sections: consent, experiment link, information recall questions, questions concerning the optimal experience constructs, questions regarding the hedonistic and utilitarian functions, questions about the dependent variable, travel habits questions and, finally, questions regarding demographics. Each respondent had access to a survey that was identical except that the experiment link was randomly assigned to each of them. The questionnaire was structured with a 7-point Likert scale and open questions.

Once the candidates opened the link, they entered a welcome page, where the nature of the study was explained and their consent to participate was requested. Afterwards, an introduction page opened, explaining the experimental task to be performed. In fact, participants were asked to image to have chosen Mongolia as their next travel destination. The participants were randomly and equally assigned to one of the four fictitious Wanderlust tour operator websites. The participants then visited the website assigned to them for as long as they wanted. A timer was included in order to keep track of the amount of time the candidates spent exploring the website.

The respondents were asked to answer some questions about the visited website and their opinion about the video present in it. In addition, there were also questions regarding the optimal experience, behavioural intentions and customer satisfaction. Finally, the candidates were asked to answer some demographic and travel habits questions. When the participants finished the survey, they were thanked for their participation.

3.6 Measurements

The survey was divided into eight parts: consent, experiment link, information recall questions, questions concerning the optimal experience, questions regarding the hedonistic and utilitarian functions, questions about the dependent variable, travel habits questions and finally, questions regarding demographics. The survey was structured with a 7-point Likert scale (from 1 = strongly disagree to 7 = strongly agree).

Internal consistency is fundamental in establishing and measuring bias in research. For this reason, Cronbach's alpha was used for all the dependent variables and for the four constructs of the mediating variable, optimal experience.

3.6.1 Optimal Experience

The four dimensions of the optimal experience (enjoyment, concentration, time distortion and telepresence) were measured with items developed by different authors (see Table 3). All four dimensions were characterised by items developed on the basis of Yoshida et al.'s (2013) work. In addition, the work of Shim, Forsythe and Kwon (2015) on the effect of online flow on brand experience and loyalty was also used to create items for the telepresence dimension, and the study on the effect of service system design and flow experience on customer satisfaction in the online financial services of Ding, Hu, Verma and Wardell (2010) was used to develop the concentration dimension. Optimal experience was measured with a 7-point Likert scale, with 1 being "strongly disagree" and 7 "strongly agree".

A reliability test was carried out for the dimension concentration comprising four items, as with the other dimensions (see Table 3). Cronbach's alpha illustrated the dimension concentration reached acceptable reliability; $\alpha = .93$. Regarding the dimension enjoyment, the overall value of Cronbach's alpha was $\alpha = .84$, therefore acceptable. Also, the dimension telepresence reached acceptable reliability; $\alpha =$.90. Furthermore, Cronbach's alpha showed the time distortion dimension to be reliable; $\alpha = .78$. The item "I spent a lot of time watching the video" had a corrected item-total correlation of .31. Thus, the item was removed, increasing the Cronbach's alpha to $\alpha = .85$.

Table 3

Construct	Item	Cronbach's alpha
	- I enjoyed the video	
Enjoyment	- The video was interesting	.84
	- I felt good after watching the video	
	- The video reminded me of a game	
	- I was completely focused while viewing the video	
	- It was easy to concentrate on the video	
Concentration	- The video grabbed my attention and maintained	93
concentration	the focus	.55
	- I was completely absorbed in what I was	
	watching	

Optimal experience measurements

	- I lost track of time when I was watching the video - When I finished watching the video, it felt like	
	time passed quickly	
Time distortion	- I spent a lot of time watching the video	.85
	- Time seemed to pass very quickly when I was using the website	
	- I forgot about my immediate surroundings when	
Toloproconco	- I felt I was in the world the video created	90
leiepresence	 The video seemed to me somewhere I visited rather than something I saw 	.90
	 When I finished watching the video, I felt like I come back to the real world after a journey 	

3.6.2 Interactive Videos' Functions

The hedonistic and utilitarian functions added to the interactive videos present in the experimental conditions were measured using the items created by Mikalef, Giannakos and Pateli, (2013). The items were modified to fit the research topic better (Table 4). There were ten items: five for the hedonistic condition and five for the utilitarian one, which were measured with a 7-point Likert scale, with 1 being "strongly disagree" and 7 "strongly agree".

A reliability test was carried out for both the interactive functions (see Table 4). Cronbach's alpha illustrated that hedonistic function reached acceptable reliability; $\alpha = .91$. Regarding the utilitarian function, the overall value of Cronbach's alpha was $\alpha = .88$, therefore acceptable.

Table 4

Hedonistic and utilitarian functions measurements

Construct	Item	Cronbach's alpha
	- The video in the website was fun	
	- The video in the website was entertaining	.91
Hedonistic function	- The video in the website was exciting	
	- The video in the website was thrilling	
	- The video in the website was enjoyable	
	- The video in the website was informative	
	- The video in the website was helpful	
	- The video in the website was functional	.88
Utilitarian function	- The video in the website was practical	
	- The video in the website was necessary	

3.6.3 Behavioural Outcomes

The items used to test the dependent variable were built on different studies. Purchase intention was tested with four items, reworked from the study of Mikalef, Giannakos and Pateli (2013), with a 7-point Likert scale, with 1 being "strongly disagree" and 7 "strongly agree" (see Table 5). A reliability test was carried out for the purchase intention variable, and Cronbach's alpha illustrated that it reached acceptable reliability; $\alpha = .89$.

Table 5

Purchase intention measurements

Construct	Item	Cronbach's alpha
	- How likely would it be that you would purchase a	
	travel on Wanderlust?	
	- How likely would it be that you would	
Purchase intention	recommend this tour operator to a friend?	.89
	- How likely would it be that you would choose to	
	purchase on Wanderlust tour operator instead of	
	other competitors in the future?	
	- How likely would it be that you would visit	
	Mongolia in the nearly future?	

Concerning revisit intention, three items were created and adjusted on the basis of two previous questionnaires created by Qu (2017) in his study on the effect of experience on satisfaction and revisit intention in theme parks and on the survey made by Luo and Hsieh (2013) on reconstructing a revisit intention scale in tourism. In this case, the items were also tested using a 7-point Likert scale, with 1 being "strongly disagree" and 7 "strongly agree" (Table 6). This variable also had reliable results; $\alpha = .95$.

Table 6

Revisit intention measurements

Construct	ltem	Cronbach's alpha	
	- How likely would it be that you would revisit		
Revisit intention	wanderlust website?	.95	
	- How likely would it be that you would use the		
	services provide by Wanderlust in the future?		
	- How likely would it be, if you had to choose		
	again, that you would peak this tour operator?		

Price sensitiveness was tested with three items, two closed questions and one open one (see Table 7). The items were reworked on the basis of the survey used by Raab, Mayer, Shoemaker and Ng (2009) in their research. The items were tested using a 7-point Likert scale, with 1 being "strongly inadequate" and 7 "strongly adequate" In addition, price sensitiveness was not included in the reliability analysis because it was measured by only two questions; thus, it was impossible to run the test.

Table 7

Price sensitiveness measurements

Construct	Item	Cronbach's alpha	
	- On average a tour of 15 days offered on Wanderlust cost 2300€ (without the flights). Do you consider the price adequate?	Not applicable	
Price sensitiveness	- Do you consider the tour price?	Not applicable	
	- In your opinion, what is the most appropriate price for the kind of tour offered on the website you have visited?	Not applicable	

Finally, customer satisfaction was measured with four items created on the basis of the work of Qu (2017) and Ding, Hu, Verma and Wardell (2010) with a 7-point Likert scale, with 1 being "strongly disagree" and 7 "strongly agree" (Table 8). In addition, customers' satisfaction was proven reliable; α = .90. Indeed, all items appeared to be worthy of conservation, resulting in a reduction of the Cronbach's alpha value if removed.

Table 8

Customer satisfaction measurements

Construct	Item	Cronbach's alpha	
	- I am satisfied with my overall experience on the website		
Customer satisfaction	- The website is better than I expected	.90	
	 The website is a good place to visit to book a travel 		
	 The website is a good place to visit to discover a destination 		

4. Results

The following section reports the outcome of this research analysis. First, the effects of the utilitarian and hedonic functions in interactive videos on concentration, enjoyment, time distortion and telepresence were analysed in a two-way analysis of variance. The direct effect of interactive functions on consumer behaviour was subsequently analysed. Finally, the mediating role of enjoyment was analysed using linear regressions.

4.1 Analysis of Variance of the Optimal Experience

The first three hypotheses stated that the presence of individual interactive functions would increase the users' concentration, enjoyment, time distortion and telepresence and that their use in combination would create the greatest effect. Analyses of variance were performed to examine the effects of hedonistic and utilitarian interactive functions on the components of the optimal experience.

First, with regard to concentration, the analysis of variance illustrated no significant main effect for hedonistic functions, F(1,168) = 2.50, p = .116, as well as no statistically significant main effect for the utilitarian function, F(1,168) = 0.97, p = .326. Moreover, the analysis of variance showed no significant interaction effect, F(1,168) = 0.53, p = .465. Thus, the analysis revealed that videos with different interactive functions make no difference on the level of concentration.

Subsequently, a factorial between group analysis of variance was performed for enjoyment. The outcomes showed no significant main effect for the utilitarian interactive function, F(1, 168) = 0.95, p = .331. On the other hand, the analysis did show a significant main effect for the hedonistic function, F(1, 168) = 0.95, p = .331. On the other hand, the analysis did show a significant main effect for the hedonistic function, F(1, 168) = 0.95, p = .331. On the other hand, the analysis did show a significant main effect for the hedonistic function, F(1, 168) = 6.70, p = .010, meaning that interactive video with hedonistic function resulted in higher levels of enjoyment than video with no hedonistic functions. In addition, no statistically significant interaction effect was found, F(1, 168) = 0.13, p = .716.

Next, an ANOVA test was performed for time distortion. The between-subjects test indicated no significant main effect for either hedonistic function, F(1,168) = 2.37, p = .125 or utilitarian function,

F(1,168) = 1.31, p = .253. Furthermore, the analysis showed no significant interaction effect, F(1,168) = 0.21, p = .651. Consequently, the analysis showed that the different interactive functions or their combination do not improve time distortion.

Finally, with regard to telepresence, an analysis of variance was used to investigate the effects of the interactive functions. The results illustrated no statistically significant main effect for the hedonistic function, F(1,168) = 1.38, p = .242. Similarly, no significant main effect for the utilitarian function was found, F(1,168) = 0.72, p = .397. In addition, no statistically significant interaction effect was found, F(1,168) = 0.91, p = .342. Therefore, the analysis illustrated that videos with different interactive functions make no difference in the creation of telepresence.

Analyses of variance were performed to examine the effects of hedonistic and utilitarian interactive functions. The analysis showed that only the hedonistic interactive function has an effect on the level of enjoyment. Thus, it can be concluded that these findings disconfirm hypothesis 1 and hypothesis 3, whereas they only partially confirm hypothesis 2.

Table 9

Experiment conditions	Optimal experience	Ν	Μ	SD
Linear Video	Concentration	45	3.9	1.7
	Enjoyment	45	4.4	1.7
	Time Distortion	45	3.3	1.5
	Telepresence	45	3.4	1.4
Utilitarian function	Concentration	39	3.9	1.4
	Enjoyment	39	4.7	1.3
	Time Distortion	39	3.4	1.2
	Telepresence	39	3.3	1.3
Hedonistic function	Concentration	49	4.1	1.5
	Enjoyment	49	4.9	1.3
	Time Distortion	49	3.5	1.5
	Telepresence	49	3.4	1.5

Optimal Experience: Analysis of mean test

Utilitarian and Hedo- nistic functions	Concentration	39	4.5	1.6
	Enjoyment	39	4.9	1.5
	Time Distortion	39	3.9	1.5
	Telepresence	39	3.8	1.5

4.2 Analysis of Variance of the Behavioural Outcomes

Several analyses of variance were performed to examine the effects of the interactive functions on the consumers' behaviours of purchase intention, revisit intention, price sensitiveness and customer satisfaction.

First, concerning purchase intention, the analysis showed no significant main effect for the hedonistic function, F(1,168) = 2.30, p = .132. Similarly, it resulted in no statistically significant main effect for the utilitarian function, F(1,168) = 2.57, p = .111. Moreover, the analysis of variance illustrated no significant interaction effect, F(1,168) = 0.72, p = .396. Consequently, the analysis revealed that the different interactive functions make no difference on affecting purchase intention.

Next, a factorial between group analysis of variance was conducted for the variable revisit intention. The outcomes showed no significant main effect for either the hedonistic function, F(1,168) = 1.41, p = .237, or the utilitarian function, F(1,168) = 0.63, p = .428. In addition, no statistically significant interaction effect was found, F(1, 168) = 0.21, p = .647. Therefore, the analysis of variance illustrated that videos with different interactive functions do not effect on revisit intention.

Subsequently, an analysis of variance was performed for the variable customer satisfaction. The between-subjects test indicated no significant main effect for the hedonistic function, F(1,168) = 0.97, p = .325, as well as no statistically significant main effect for videos with utilitarian functions, F(1,168) = 0.51, p = .476. Furthermore, the analysis showed no significant interaction effect, F(1, 168) = 0.05, p = .829. Thus, the analysis showed that the different interactive functions or their combination do not impact the level of customer satisfaction.
Regarding price sensitiveness, a two-way ANOVA was performed to investigate the effects of the interactive functions. The analysis showed a marginal significant main effect for the hedonistic function, F(1,168) = 3.25, p = .073. Similarly, a marginal statistically significant main effect was found for the utilitarian function, F(1, 168) = 3.42, p = .066. These marginal main effects show that interactive videos with singular interactive function resulted in higher impact on price sensitiveness than the combined effect of hedonistic and utilitarian functions. Indeed, no statistically significant interaction effect was found, F(1, 168) = 0.02, p = .891.

Analyses of variance were performed to examine the direct effects of hedonistic and utilitarian interactive functions on the behavioural outcomes. The analysis showed that only the interactive functions taken singularly had a marginal effect on price sensitiveness.

Table 10

Experiment conditions	Behavioural	N	Μ	SD
	Outcomes			
	Purchase Intent.	45	3.7	1.4
Linear Video	Revisit Intant.	45	3.6	1.6
	Customer's Satisf.	45	4.2	1.3
	Price Sensitiv.	45	3.2	1.3
	Purchase Intent.	39	3.9	1.4
Utilitarian function	Revisit Intant.	39	3.7	1.7
	Customer's Satisf.	39	4.3	1.1
	Price Sensitiv.	39	3.5	1.1
	Purchase Intent.	49	3.9	1.6
Hedonistic function	Revisit Intant.	49	3.8	1.9
	Customer's Satisf.	49	4.4	1.5
	Price Sensitiv.	49	3.5	1.1
	Purchase Intent.	39	4.5	1.7
Utilitarian and	Revisit Intant.	39	4.2	2.0
Hedonistic functions	Customer's Satisf.	39	4.6	1.7
	Price Sensitiv.	39	3.8	1.1

Behavioural Outcomes: Analysis of mean test

4.3 Mediation Analysis

Given the lack of significant effect of the interactive functions on three out of the four components of the optimal experience, it was not possible to verify the mediating power of the optimal experience on behavioural intention. For this reason, a regression analysis using the process developed by Hayes (Hayes, 2017) was executed to investigate the relationship between the hedonistic function and the optimal experience's construct, enjoyment.



Figure 9. Regression on purchase intention. **Note:** unstandardized coefficients (*) are reported

In the regression analysis, the direct effect of the hedonistic function purchase intention, on ignoring mediating the variable enjoyment, was not significant, b = .33, t (170) =1.40, p = .162. By contrast, the regression analysis revealed that the direct effect of the hedonistic function

on enjoyment was significant, b = .55, t (170) = 2.62, p = .009. The mediation process also showed that enjoyment, controlling for the hedonistic function, was significant, b = .84, t (169) = 14.35, p < .001. Finally, the test illustrated that, when controlling for enjoyment, the hedonistic function was not a significant predictor of purchase intention, b = -.13, t (169) = -0.78, p = .433.

The regression analysis of the effect of hedonistic function on revisit intention, not considering the mediating variable, was not significant, b = .32, t(170) = 1.14, p = .257. On the other hand, the test revealed that the regression of the direct effect of the hedonistic function on the mediator variable, enjoyment, was significant, b = .55, t(170) = 2.62, p = .009. The mediation process showed that enjoyment, controlling

for the hedonistic function, was significant, b = .93, t (169) = 12.60, p < .001. Finally, the regression showed that, when controlling for enjoyment, the hedonistic function was not a significant predictor of revisit intention, b = -.19, t (169) = -0.93, p = .350.



Figure 10. Regression on revisit intention. **Note:** unstandardized coefficients (*) are reported

The regression analysis of the effect of the hedonistic function on customer satisfaction, ignoring the mediating variable, enjoyment, was not significant, b = .21, t(170) = 0.96, p = .338. By contrast, the analysis revealed that the regression of the direct effect of the hedonistic function on the mediating variable was significant, b = .55, t(170) = 2.62, p = .009. The mediation process also showed that enjoyment, when controlling for the hedonistic function, was a significant predictor of customer satisfaction, b = .77, t(169)



= 14.57, p < .001. Finally, the outcomes illustrated that, when controlling for enjoyment, the hedonistic function was not a significant predictor of customers' satisfaction, b = -.21, t (169) = -1.46, p = .145.

Figure 11. Regression on customer satisfaction.

Note: unstandardized coefficients (*) are reported

To conclude, the regression of the direct effect of the hedonistic function on price sensitiveness, not considering the mediating variable, enjoyment, was marginally significant, b = .31, t (170) = 1.75, p = .080. The analysis revealed that the regression of the effect of the hedonistic function on enjoyment was significant, b = .55, t (170) = 2.62, p = .009. The mediation process showed that enjoyment, controlling



for the hedonistic function, was significant, b = .31, t(169) = 5.04, p < .001. Finally, the test revealed that, when controlling for enjoyment, the hedonistic function was not a significant predictor of purchase intention, b = .14, t(169) = 0.84, p = .399.

Figure 12. Regression on price sensitiveness **Note:** unstandardized coefficients (*) are reported

Linear regressions were performed to examine the mediating role of enjoyment in the relationships between the video with hedonistic feature and the hypothesised behavioural outcomes. The analyses showed that enjoyment mediated only the relationships between the video with hedonistic feature and price sensitiveness. Thus, it can be concluded that these findings only partially confirm hypothesis 6.

Table 11

Summary of hypotheses

Ν	Hypothesis	Result
1	The use of interactive videos with a utilitarian function increases	Rejected
	concentration, enjoyment, time distortion and telepresence compared	
	to linear videos.	
2	The use of interactive videos with a hedonistic function increases	Partially
2	concentration, enjoyment, time distortion and telepresence compared	T di tidity
	to a utilitarian function or linear videos	confirmed
	to a utilitarial function of linear videos.	
3	The interaction of both interactive functions creates the largest effect on	Rejected
	concentration, enjoyment, time distortion and telepresence compared	
	to a utilitarian function, a hedonistic function or linear videos	
Д	An optimal experience mediates the relationship between interactive	Rejected
·	videos (with a utilitarian function, a hedonistic function and the	hejeeteu
	combination of both) and purchase intention.	
5	An optimal experience mediates the relationship between interactive	Rejected
	videos (with a utilitarian function, a hedonistic function and the	
	combination of both) and revisit intention.	
6	An optimal experience mediates the relationship between interactive	Partially
	videos (with a utilitarian function, a hedonistic function and the	confirmed
	combination of both) and price sensitiveness.	commed
7	An optimal experience mediates the relationship between interactive	Principal
/	videos (with a utilitarian function, a hedonistic function and the	Nejecteu
	combination of both) and customer satisfaction.	

_

5. Discussion, Limitations and Future Recommendations

The purpose of this research was to investigate the extent to which interactive videos enhance the optimal experience to influence customer behaviours. It emerged that interactive videos have no effect on creating the optimal experience. It also emerged that the interactive videos had no significant effect on the dependent variables. Regarding the mediating effect, the analysis illustrated that the enjoyment dimension mediated only the relationships between the video with hedonistic feature and price sensitiveness.

The last section provides a general discussion of the findings of this research. Subsequently, it examines the limitations of the research and offers recommendations for future studies.

5.1 General Discussion

Based on the results of the analysis, a discussion can be held. The central aim of this study was to investigate whether the use of interactive videos on tour-operator websites could generate an optimal experience, and if so, to identify its subsequent effect on customers' behaviour. The outcomes show little support for an effect of videos on the creation of the optimal experience, while the results do highlight the mediating role of the enjoyment dimension on price sensitiveness.

Specifically, this study revealed that videos with different interactive functions, shown within the online tour operator context, make no difference in the creation of the optimal experience. In fact, the combined effects of the videos' utilitarian and hedonic functions did not result in a more optimal experience. The results obtained show that only the hedonistic interactive function has an effect, and only on the enjoyment construct. This result means, in the first place, that the four dimensions do not have the same power in creating an optimal experience, but that enjoyment is the most important and effective. Second, that consumers experience more enjoyment when watching videos featuring different branches from which they can choose. This outcome is in line with prior research. In fact, several studies note that enjoyment can be amplified through the use of specific design features (Ettis, 2017)

and interactive applications (Domina, Lee, & MacGillivray, 2012). Hence, hedonistic videos affect users' enjoyment more than utilitarian ones. This outcome could be explained by the research conducted by Tussyadiah & Fesenmaier (2009), who found that travel-related videos generated "fantasies and daydreams" (Tussyadiah & Fesenmaier, 2009, p. 37) due to their intrinsically hedonistic nature (Tussyadiah & Fesenmaier, 2009) and the greater power of hedonistic characteristics than utilitarian ones in creating the optimal experience (Bilgihan, Okumus, Nusair & Bujisic, 2014).

Next, this research shows that interactive videos have no effect on customers' behaviour. In fact, there is no significant difference between the type of interactive function (utilitarian or hedonistic) seen in the hypothesised behavioural outcomes. Only a marginal effect was found for both, between the hedonistic interactive functions and price sensitiveness, as well between the utilitarian interactive functions and price sensitiveness, as well between the utilitarian interactive functions and price sensitiveness, but the combination of the two interactive functions has no influence on customers' behaviour. Unlike previous literature, in this research it was not possible to find any effect of the interactive elements on the behavioural intentions of consumers. For example, Koufaris (2002) highlighted how some features of online stores, such as colours, had an influence on revisit intention. This means that simply adding interactive functions within the videos is not enough to influence consumers.

Finally, several previous studies have shown that an optimal experience is a prerequisite for purchase intention and revisit intention (Gao & Bai, 2014; Ettis, 2017) and that the optimal experience can mediate the relationship with price sensitiveness (Hsu, Chang, & Chen, 2013). In the context of this research, however, given the lack of significant effects of interactive functions on all of the components of the optimal experience, it was impossible to verify the mediating power of the optimal experience on behavioural intentions. On the other hand, when investigating the mediating power of enjoyment, it was found that the enjoyment construct mediates the relationship between the interactive hedonistic function and price sensitiveness. Hence, this research exemplifies how only one dimension of the optimal experience plays a mediating role in this specific context. In fact, Hoffman and Novak (2009) and Bilgihan, Nusair, Okumus and Cobanoglu (2015) underscore how an optimal online experience can take place only under certain conditions, which vary by context. Consequently, the results emphasise how the creation of an optimal experience in the online tourism sector cannot be delegated solely to the use of interactive videos.

41

5.2 Limitations and Recommendations for Future Research

Several limitations of this research can be addressed. One is associated with website design. In fact, all four websites were created using the same free online platform. This led to limitations in the layout design and in the possibility of uploading the experimental videos directly to the site instead of redirecting users to another web page. In addition, due to the time limits and materials available to the researcher, the creation of complete websites was not feasible. Indeed, it was impossible to create several complete and coherent travel packages, provide staff information or include a section on the website where existing customers could leave testimonials. For these reasons, this study opted to design a site for a tour operator that exclusively created personalised travels, resulting in limited examples of possible itineraries. This choice was commented upon negatively by the participants, who emphasised how difficult it was to get an idea about the possible travel packs available to buy without having a specific example available. For these reasons, for future research it is advisable to create websites that are more complete and in line with the expectations of the user to prevent an impression of non-professionalism from affecting the evaluation of the interactive videos.

A second limitation of this research can be attributed to the interactive videos. The professional creation of interactive videos requires a high expenditure of money and time. In fact, even in this case, a free programme was used. It did not allow the appearance of the hotspots to be changed, the creation of drop-down menus for information or changing the footage from the video bar. For example, the presence of hotspots that 'flash' on the screen was commented upon by participants as a source of distraction. This affected the perceived professionalism of the result and subsequently on the evaluation of the videos themselves. Finally, it should be stressed that the videos were quite long, about five minutes each. This meant that many participants dropped out of the experiment (specifically 53.6%). For these reasons, it is recommended, if possible, that this type of technology be designed with the help of a professional programmer and that the videos are kept short.

A last limitation could be associated with the sample, which was relatively homogeneous in age range, with a mean of 25 years old. This could be connected with the social media groups in which the survey was shared, which are mainly attended by university students. In fact, as long as the travel services are bought by a wide and variegated range of consumers, having a sample composed mostly of young people could lead to some bias concerning the target representation. For these reasons, it is advisable to select a more heterogeneous sample. In addition, the choice to analyse such a specific industry may have led to limitations in the application of the results obtained in other contexts. Therefore, future research could consider studying the use of interactive videos to create an optimal experience in other contexts, such as in the field of education. In addition, only four dimensions were used in this research to analyse the optimal experience. Thus, if researchers want to expand the tourism literature further, future research could investigate the effect of designing interactive videos with manipulation tactics other than those used in this study or operationalising the optimal experience with other dimensions deriving from the flow experience, such as, for example, skill balance.

6. Final Conclusion

To conclude, this research aimed to explore the role of interactive videos in the creation of an optimal experience to influence purchase intention, revisit intention, price sensitiveness and customer satisfaction.

The study shows that interactive videos have no effect on the creation of the optimal experience. Only videos with hedonistic functions had an influence on the enjoyment construct. In fact, the study found that there is no difference between the versions of the video tested in their ability to create concentration, telepresence and time distortion.

Next, this study found no significant effect of the interactive videos on the dependent variables. Indeed, the research showed no difference between the type of video used to enhance purchase intention, revisit intention or customer satisfaction, and there was only a marginal effect on price sensitiveness. Concerning the mediating effect, the analysis showed that enjoyment mediated only the relationship between the video with hedonistic functions and price sensitiveness.

Finally, it should be emphasised that, in the previous literature, the use of interactive videos to favour the optimal experience had not yet been studied in detail. Therefore, this research represents a first step in this area, and more significant results could have been obtained with the use of professionally made materials. Still, the results of this research could be used as the basis for future investigations. In fact, there is much room for future research in this field.

- 45 -

7. References

Al-Qeisi , K., Dennis, C., Alamanos, E., & Jayawardhena, C. (2014). Website design quality and usage behavior: Unified Theory of Acceptance and Use of Technology. Journal of Business Research, 67(11), 2282-2290. doi:10.1016/j.jbusres.2014.06.016

Benyon, D., Quigley, A., O'Keefe, B., & Riva, G. (2014). Presence and digital tourism. AI & Society, 29(4), 521-529. doi:10.1007/s00146-013-0493-8

Bhattacharya, A., & Srivastava, M. (2018). A Framework of Online Customer Experience, An Indian Perspective. Global Business Review, 1-18. doi:10.1177/0972150918778932

Bilgihan, A., & Bujisic, M. (2015). The effect of website features in online relationship marketing: A case of online hotel booking. Electronic Commerce Research and Applications, 14(4), 222-232. doi:10.1016/j. elerap.2014.09.001

Bilgihan, A., Nusair, K., Okumus, F., & Cobanoglu, C. (2015). Applying flow theory to booking experiences: An integrated model in an online service context. Information & Management, 52(6), 668–678. doi:doi. org/10.1016/j.im.2015.05.005

Bilgihan, A., Okumus, F., Nusair, K., & Bujisic, M. (2014). Online Hotel Booking Experience: Flow Theory, Measuring Online Customer Experience and Managerial Implications for the lodging industry. Journal of Information Technology & Tourism, 14, 49-71. doi:10.1007/s40558-013-0003-3

Buil, I., Catalàn, S., & Martìnez, E. (2019). The influence of flow on learning outcomes: An empirical study on the use of clickers. British Journal of Educational Technology, 50(1), 428-439. doi:10.1111/bjet.12561

Chen, H. T., & Lin, T. W. (2012). How a 3D Tour Itinerary Promotion Affect Consumers' Intentioion to purchase a tour product? Information technology Journal, 11(10), 1357-1368. doi:10.3923/itj.2012.1357.1368

Chen, H., & Rahman, I. (2018). Cultural tourism: An analysis of engagement, cultural contact, memorable tourism experience and destination loyalty. Tourism Management Perspectives, 26, 153–163. doi:10.1016/j.tmp.2017.10.006

Csikszentmihalyi, M. (1990). Flow: The psychology of optimal experience. New York: Harper Perennial.

De Lima, E. S., Feijó, B., & Furtado, A. L. (2018). Video-based interactive storytelling using real-time video compositing techniques. Multimed Tools Appl, 77(2), 2333–2357. doi:10.1007/s11042-017-4423-5

Ding, X. D., Hu, P. J., Verma, R., & Wardell, D. G. (2010). The impact of service system design and flow experience on customer satisfaction in online financial services. Cornell University, School of Hotel Administration, 1-28.

Domina, T., Lee, S. E., & MacGillivray, M. (2012). Understanding factors affecting consumer intention to shop in a virtual world. Journal of retailing and consumer services, 19(6), 613-620. doi:10.1016/j. jretconser.2012.08.001

Ettis, S. A. (2017). Examining the relationships between online store atmospheric color, flow experience and consumer behavior. Journal of Retailing and Consumer Services, 37, 43-55. doi:10.1016/j. jretconser.2017.03.007

Gao, L., & Bai, X. (2014). Online consumer behaviour and its relationship to website atmospheric induced flow: Insights into online travel agencies in China. Journal of Retailing and Consumer Services, 21(4), 653-665. doi:10.1016/j.jretconser.2014.01.001

Ghani, J. A., & Deshpande, S. P. (1994). Task characteristics and the experience of optimal flow in human—computer interaction. The Journal of psychology, 128(4), 381-391.

Ghani, J. A., Supnick, R., & Rooney, P. (1991, January). The Experience of Flow in Computer-mediated and in Face-to-face Groups. Proceedings of 12th International Conference of Information Systems, Vol. 91, No. 6, pp. 229-237. New York.

Hayes, A. F. (2017). Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach. Guilford publications.

Hoffman, D. L., & Novak, T. P. (1996). Marketing in Hypermedia Computer-mediated Environments: Conceptual Foundations. The Journal of Marketing, 60(3), 50–68.

Hsu, C. L., Chang, K. C., & Chen, M. C. (2013). Flow Experience and Internet Shopping Behavior: Investigating the Moderating Effect of Consumer Characteristics. Systems Research and Behavioral Science, 29(3), 317–332. doi:10.1002/sres.1101

Hsu, C. L., Chang, K. C., & Chen, M. C. (2012). The impact of website quality on customer satisfaction and purchase intention: perceived playfulness and perceived flow as mediators. Information Systems and e-Business Management, 10(4), 549–570. doi:10.1007/s10257-011-0181-5

Jung, T., Chung, N., & Leue, M. C. (2015). The determinants of recommendations to use augmented reality technologies: The case of a Korean theme park. Tourism Management, 49, 75-86. doi:http:10.1016/j. tourman.2015.02.013

Kandampully, J., Zhang, T. C., & Jaakkola, E. (2018). Customer experience management in hospitality: a literature synthesis, new understanding, and research agenda. International Journal of Contemporary Hospitality Management, 30(1), 21-56. doi:10.1108/IJCHM-10-2015-0549

Kazanidis, I., Palaigeorgiou, G., Papadopoulou, A., & Tsinakos, A. (2018). Augmented Interactive Video: Enhancing Video Interactivity for the School Classroom. Journal of Engineering Science and Technology Review, 11(2), 174-181. doi:10.25103/jestr.112.23

Kim, J. H. (2014). The antecedents of memorable tourism experiences: The development of a scale to measure the destination attributes associated with memorable experiences. Tourism management, 44, 34-45. doi:10.1016/j.tourman.2014.02.007

Kim, M., & Thapa, B. (2018). Perceived value and flow experience: Application in a nature-based tourism context. Journal of Destination Marketing & Management, 8, 373–384. doi:10.1016/j.jdmm.2017.08.002

Kim, S. E., Lee, K. Y., Shin, S. I., & Yang, S. B. (2017). Effects of tourism information quality in social media on destination image formation: The case of Sina Weibo. Information & Management, 54(6), 687-702. doi:10.1016/j.im.2017.02.009

Koufaris, M. (2002). Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior. Information Systems Research, 13(2), 205-223. doi:https:10.1287/isre.13.2.205.83

Kranzbuhler, A. M., Kleijnen, M. H., Morgan, R. E., & Teerling, M. (2018). The Multilevel Nature of Customer Experience Research: An Integrative Review and Research Agenda. International Journal of Management Reviews, 20(2), 433-456. doi:10.1111/ijmr.12140

Lee, S. M., & Chen, L. (2010). The impact of flow on online consumer behavior. Journal of Computer Information Systems, 50(4), 1-10.

Luna-Nevarez , C., & Hyman, M. R. (2012). Common practices in destination website design. Journal of Destination Marketing & Management, 1(1-2), 94-106. doi:10.1016/j.jdmm.2012.08.002

Luo, S. J., & Hsieh, L. Y. (2013). Reconstructing Revisit Intention Scale in Tourism. Journal of Applied Sciences, 13(18), 3638-3648. doi:10.3923/jas.2013.3638.3648

Martins, J., Gonçalves, R., Branco, F., Barbosa, L., Melo, M., & Bessa, M. (2017). A multisensory virtual experience model for thematic tourism: A Port wine tourism application proposal. Journal of Destination Marketing & Management, 6(2), 103-109. doi:10.1016/j.jdmm.2017.02.002

Meyer, C., & Schwager, A. (2007). Understanding customer experience. Harvard business review, 85(2), 116.

Mikalef, P., Giannakos, M., & Pateli, A. (2013). Shopping and Word-of-Mouth Intentions on Social Media. Journal of Theoretical and Applied Electronic Commerce Research, 8(1), 17-34. doi:10.4067/S0718-18762013000100003

Neuhofer, B., Buhalis, D., & Ladkin, A. (2012). Conceptualising technology enhanced destination experiences. Journal of Destination Marketing & Management, 1(1-2), 36–46. doi:10.1016/j.jdmm.2012.08.001

Novak, T. P., Hoffman, D. L., & Yung, Y. F. (2000). Measuring the Customer Experience in Online Environments: A Structural Modeling Approach. Marketing Science, 19(1), 22-42.

Pelet, J. E., Ettis, S., & Cowart, K. (2017). Optimal experience of flow enhanced by telepresence: Evidence from social media use. Information & Management, 54(1), 115-128.

Peltier, D., & Sheivachman. (2018, september 18). Tours and Experiences: The Next Great Untapped Market in Online Travel. Retrieved from Skift: https://skift.com/2018/09/18/tours-and-experiences-the-next-great-untapped-market-in-online-travel/

Qu, K. (2017). The impact of experience on satisfaction and revisit intention in theme parks: An application of the experience economy. Graduate Theses and Dissertations., 1-70.

Raab, C., Mayer, K., Shoemaker, S., & Ng, S. (2009). Activity-based pricing: Can it be applied in restaurants? International Journal of Contemporary Hospitality Management., 33(1), 93-105. doi:10.1177/1096348008329659

Rodríguez-Molina, M. A., Frías-Jamilena, D. M., & Casta~neda-García, J. A. (2015). The contribution of website design to the generation of tourist destination image: The moderating effect of involvement. Tourism Management, 47, 303-317. doi:10.1016/j.tourman.2014.10.001

Scarpi, D. (2012). Work and fun on the internet: the effects of utilitarianism and hedonism online. Journal of interactive marketing, 26(1), 53-67. doi:10.1016/j.intmar.2011.08.001

Shim, S. I., Forsythe, S., & Kwon, W. S. (2015). Impact of online flow on brand experience and loyalty. Journal of Electronic Commerce Research, 16(1), 56-71.

Steffes, E. M., & Duverger, P. (2012). Edutainment with Videos and its Positive Effect on Long Term Memory. Journal for Advancement of Marketing Education, 20(1), 1-10.

Trautman, E. (2019, May 24). Interactive Video: What It Is, Why It Matters, and Why It Doesn't Always Work. Retrieved from Corp.kaltura: https://corp.kaltura.com/blog/interactive-video-what-it-is-why-it-matters-and-why-it-doesnt-always-work/

Trevino, L., & Webster, J. (1992). Flow in Computer-Mediated Communication: Electronic Mail and Voice Mail Evaluation and Impacts. Communication Research, 19(5), 539-573. doi:10.1177/009365092019005001

Tung, V. W., & Ritchie, J. R. (2011). Exploring the essence of memorable tourism experiences. Annals of Tourism Research, 38 (4), 1367-1386. doi:10.1016/j.annals.2011.03.009

Tussyadiah, I. P., & Fesenmaier, D. R. (2009). Mediating tourist experiences: Access to places via shared videos. Annals of Tourism Research, 36(1), 24-40., 36(1), 24-40. doi:10.1016/j.annals.2008.10.001

Van Noort, G., Voorveld, H. A., & Van Reijmersdal, E. A. (2012). Interactivity in Brand Web Sites: Cognitive, Affective, and Behavioral Responses Explained by Consumers' Online Flow Experience. Journal of Interactive Marketing, 26(4), 223–234. doi:10.1016/j.intmar.2011.11.002

Yim, M. Y., Chu, S. C., & Sauer, P. L. (2017). Is Augmented Reality Technology an Effective Tool for E-commerce? An Interactivity and Vividness Perspective. Journal of Interactive Marketing, 39, 89-103. doi:10.1016/j.intmar.2017.04.001

Yoshida, K., Asakawa, K., Yamauchi, T., Sakuraba, S., Sawamura, D., Muraka, Y., & Sakai, S. (2013). The Flow State Scale for Occupational Tasks: Development, Reliability, and Validity. Hong Kong Journal of Occupational Therapy, 23(2), 54-61. doi:10.1016/j.hkjot.2013.09.002

8. Acknowledgement

I would first like to express my gratitude to my thesis supervisor Mirjam Galetzka, for having supported and helped me throughout my journey here, at the university of Twente and, especially during the writing of my thesis. I would also like to thank my second reader Ruud Jacobs for his valuable advices.

I must express my very profound gratitude to my parents and paternal grandparents for providing me with unfailing support and continuous encouragement throughout my years of study and through the process of researching and writing this thesis. This accomplishment would not have been possible without them.

A special thought goes to my maternal grandparents, who although no longer physically by my side, have always helped and guided me from above, to find the light in the darkest moments. I dedicate this milestone to you.

I would also like to thank my friends, olds and news. Thanks to Daniela, Federica, Aura and Roberta for always being present even at kilometres away. And finally, I can only thank Antonela and Chris for always supporting me, you have made this experience so much better.

Appendix A

Pre-test survey

Start of Block: Informed Consent

Q1 Welcome to the pre-test study!

I am interested to test some tour operator websites.

This pre- test study will be divided in two parts, at first you will be presented with two experiment versions. The second part will consist in some questions about the conditions. Please be assured that your responses will be kept completely confidential, and all the data collected will be used only for research purposes.

Please, take in mind that you will interact with a website prototypes, created by a non-professional. In addition, your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice.

By signing this informed consent, you acknowledge that your participation in the study is voluntary, you are at least 18 years old, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason. This is a test of the website. I am not testing you. I want to find out what aspects are confusing, so we can make it better. You may take breaks as needed and stop your participation in the study at any time.

I have read the description of the study and of my rights as a participant. I voluntarily agree to participate in the study

- o I consent, begin the study (1)
- o I do not consent, I do not wish to participate (2)

Skip To: End of Survey If Welcome to the pre-test study! I am interested to test some tour operator websites. This pr... = I do not consent, I do not wish to participate

Q2 I agree to be recorded vocally for the entire duration of the pre-test

o I consent (1)

o I do not consent (2)

Q3 Name

Q4 Date

Q5 Participant number

End of Block: Informed Consent

Start of Block: Instructions

Q6 Two versions of a fictitious tour operator website will be presented to you. imagine you have decided to visit Mongolia as your next travel destination and browsing on internet you are arrived on Wanderlust tour operator website.

Explore the website as you have to choose whether to buy the travel from this tour operator or not. Surf freely on the websites and remember to comment liberally at all the times your actions, intentions, thoughts, opinions and doubts.

End of Block: Instructions

Start of Block: Link 1

Q7 Link 1 : https://player.hihaho.com/81a0adbb-e2c4-4cb2-bd8f-c201dd730417

End of Block: Link 1

Start of Block: features 1

Q8 Please answer to the following statement:

The video on the website was fun

- o Strongly agree (5)
- o Agree (6)
- o Somewhat agree (7)
- o Neither agree nor disagree (8)
- o Somewhat disagree (9)
- o Disagree (10)
- o Strongly disagree (11)

Q9 Please answer to the following statement:

The video on the website was entertaining

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q10 Please answer to the following statement:

The video on the website was informative

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q11 Please answer to the following statement:

The video on the website was functional

- o Strongly agree (5)
- o Agree (6)
- o Somewhat agree (7)
- o Neither agree nor disagree (8)
- o Somewhat disagree (9)
- o Disagree (10)
- o Strongly disagree (11)

Q12 Comments

End of Block: features 1

Start of Block: Flow experience 1

Q13 Did you enjoy the video?

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q14 Were you completely focused while viewing the video?

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q15 Did you lose track of time when you were watching the video?

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q16 When you finished watching the video, did you feel like you were back to the real world after a journey?

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q17 Comments

End of Block: Flow experience 1

Start of Block: Link 2

Q18 Link 4: https://player.hihaho.com/64e68eb8-ee0d-4d35-bfd5-6ff26fa347fa

End of Block: Link 2

Start of Block: features 2

Q19 Please answer to the following statement:

The video on the website was fun

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q20 Please answer to the following statement:

The video on the website was entertaining

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q21 Please answer to the following statement:

The video on the website was informative

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q22 Please answer to the following statement:

The video on the website was functional

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q23 Comments

End of Block: features 2

Start of Block: Flow experience 2

Q24 Did you enjoy the video?

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q25 Were you completely focused while viewing the video?

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)

o Strongly disagree (10)

Q26 Did you lose track of time when you were watching the video?

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q27 When you finished watching the video, did you feel like you were back to the real world after a journey?

- o Strongly agree (4)
- o Agree (5)
- o Somewhat agree (6)
- o Neither agree nor disagree (7)
- o Somewhat disagree (8)
- o Disagree (9)
- o Strongly disagree (10)

Q28 Comments

End of Block: Flow experience 2 Start of Block: Block 8

Q29 Which video did you prefer?

Q30 What do you think of the additional features of the second video?

Q31 Comments

Appendix B

Pre-test comments

Table 3

Candidates key comments

Partic- ipants number	Linear video comments	Interactive video comments				
1	"Information are missing". "Too long".	"The information helps you to understand what you are watching, and I liked that I could choose when read them".				
		"I found positive and playful the fact that you can choose between different branches".				
2	"It looks like a movie". "It gives more an overall view of Mongo-	"I did not like that the fact that the video was di- vided into parts; each part was too short".				
	lia".	"I liked that this one has the possibility to read the information when you decide it".				
3	"The video was a bit long, but I preferred it because I found the interactive ele-	"You can say that the interactive elements are not professionally made".				
	ments not professional done, so I prefer in this case a normal version".	"This one was of more difficult understanding".				
4	"It brings you more into the location".	"The all the information was interesting".				
	"It really felt like I was there, this does not happen with the other one because I Knew that I had still stuff to see".	"I felt constrained to watch all the parts".				
5	"The video is too long, after a while I lost	"I liked the fact I could choose what to see".				
	the focus".	"The information was useful, but I would prefer to have the possibility to go back to the video".				

6	"I was constantly watching the time bar, the video was too long, even if I liked the images".	"I liked the fact that I can choose the order of the video, so I can see first what I am are more inter- ested".
7	"Beautiful images but, it was too long"."At the end I was a little bored"."The video is in line to what I already seen on other websites".	"The different paths that you can follow remem- bered me a kind of a game and this made the vid- eo more entertaining". "I would like to have the option to come back to the video after I read the information".
8	"The video shows beautiful locations but is too long and at the end you start to think to other things instead of Mongo- lia".	"I really like all the interactive features; I want to watch it again". "I really loved the adventure section and I liked that thanks to the interactivity I could play it over and over again, was really entertaining".
9	"The video was too flat and long, it was a bit boring. In this case I would prefer a shorten version".	"This video is much more compelling, maybe be- cause was similar to play a videogame in some way".
10	"The video was boring; some clips are too slow and there is not any change of rhythm".	"I would prefer to have the information at the beginning of the video, so I would know what the video was about. In fact, I really missed a button to come back to the video after I have clicked on the hotspot". "It was fun that you can choose what you will see".
11	"This video lacks information" "It was too long, and it did not entertain me".	"I did not used the hotspot for the information be- cause I wanted to see the video. It would be bet- ter to have the option to come back to the video after you have read all the information." I found really entreating the possibility to choose what to see first. It is also useful because you can see first what you are more interested in".
12	"The video was extremely long". "At the end I found the video a bit boring due to the length".	"The fact that you have to decide what will hap- pen next grabbed my attention, and I had the will to watch all the parts of the video, even the parts that overwise I would have skipped".

13	"The images are well done, I liked the music, but it is very slow, I would add	"The fact that you know that you have to interact with the video, you are more concentrated".				
	something to it to make it more enter- taining".	"I liked the information within the video but is negative that you cannot go back to the video, it made the hotspot useless".				
14	"The video at the end is too linear even in the images. I checked the time bar several times because I wanted it to end quickly".	"The fact that you can select different branch- es remembered me the movie Bandersnatch. It looked like a video game".				
15	"It is a classic advertising video". "A bit lo long".	"The length of the information is appropriate, and they are really interesting."				
	U	"I really enjoyed the fact that you can choose the order on the video, it was really fun, I didn't want to stop".				
16	"I think this video allow the viewer to better live the Mongolia experience be- cause it has not had any interruption"	"I liked the interactive elements, but I'd like to have also the options to see the complete video".				
		I'd prefer to have the information as subtitle in- stead of having them all at one time".				
17	"This video shows me a lot of beautiful images but that is, I would prefer the have something more".	"I liked that I could choose to have the informa- tion at the beginning of the video or anyway at the end, it is a pity that you can't go back".				
18	"The video was nice, but nothing spe- cial".	"I found really innovative the fact that the video is interactive".				
		"It was like playing a game, I felt like I was the main character of the travel".				
19	"I preferred this video because it gives you a more sense of continuity".	"The fact that I can choose what to see does not made any difference to me, usually I do not watch the video of travel".				
20	"The fact that here I do not have any dis- tinction between the different parts of the video, it made it more confusing".	"I found really enjoyable the fact that you can choose what you are going to see" "there is the need to add a button or something to go back to the point you stopped the video to read the information. In fact, I clicked on the hotspot only once".				
	"Five minutes in this case are really long and I soon lost the concentration and I was also bored at the end".					

Appendix C

Participants responses per each condition



Figure 13: Participants responses per each condition



Figure 15: Participants responses per each condition



Figure 17: Participants responses per each condition



Figure 14: Participants responses per each condition



Figure 16:Participants responses per each condition



Figure 18: Participants responses per each condition



Figure 19: Participants responses per each condition



Figure 29: Participants responses per each condition

-

- 65 -

Appendix D

Experiment survey

Start of Block: SURVEY INSTRUCTION

Start of Block: Informed Consent

Q1 Welcome to the research study!

You are invited to participate in an online survey for my master thesis project.

This study will be divided in two parts, at first you will be presented with a website. The second part will consist of a questionnaire, and it should take around 5-10 minutes to complete. Please be assured that your responses will be kept completely confidential, and all the data collected will be used only for research purposes.

Please, take in mind that you will interact with a website prototype, created by a non-professional. In addition, your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice.

By clicking the button below, you acknowledge that your participation in the study is voluntary, you are at least 18 years old, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.

- o I consent, begin the study (1)
- o I do not consent, I do not wish to participate (2)

Skip To: End of Survey If Q1 = 2 End of Block: Informed Consent Start of Block: Link

Q2 INSTRUCTIONS: In this study you will be first asked to carefully visit a website and watch a video. This is very important as afterwards you will be asked to answer a number of questions regarding your experience. Please take enough time to visit the website and watch the video before proceeding with the questionnaire. For some sections you will only be able to see and press the "next" button after a certain amount of time, so please do not refresh the page.

SCENARIO: Once you have opened your designated link, imagine you have decided to visit Mongolia as your next travel destination, and browsing on internet you are arrived on Wanderlust tour operator website.

Explore the website as you have to choose whether to buy the travel from this tour operator or not. When you have finished to explore, come back to this tab to finish the survey.

Q3 1: https://wanderlust01.webstarts.com/

Q4 2: https://wanderlust02.webstarts.com/

Q5 3: https://wanderlust03.webstarts.com/

Q6 4: https://wanderlust04.webstarts.com/

Q7 Timing

#EditSection, TimingFirstClick# (1)

#EditSection, TimingLastClick# (2)

#EditSection, TimingPageSubmit# (3)

#EditSection, TimingClickCount# (4)

End of Block: Link

Start of Block: Info Recall

Q8 Which video did you see?

- o Number 1: a linear video (1)
- o Number 2: an interactive video with information (2)
- o Number 3: an interactive video with different branches (3)
- o Number 4: an interactive video with information and different branches (4)

Q9 Did you have any technical problems while watching the video?

- o Yes (1)
- o No (2)

Display This Question:

lf Q9 = 1

Q10 What problem did you encounter?

Q11 Please answer the following questions without searching for the answer on the internet.

Q12

What is the typical Mongolian dwelling?

- o Gar (1)
- o Ger (2)
- o Gor (3)

Q13 Taki horses are typical of Mongolia

- o True (1)
- o False (2)

Q14 What is the most widespread religion in Mongolia?

- o Hebraism (1)
- o Christianity (2)
- o Buddhism (3)

Q15 Mongolia is characterized by white beaches and crystal-clear sea.

- o True (1)
- o False (2)

Q16 Did you recognize someone you know in the video?

- o Yes (1)
- o Maybe (2)
- o No (3)

End of Block: Info Recall

Start of Block: Flow experience

Q17 Please answer to the following statements

	Strongly disagree (9	Neither	agree nor	disagree			
(102)	Somewhat agree (1	03)	Agree (104)	Strongly agree (105)			
l enjoy	ed the video (1)	0	0	0	0	0	
0	0						
The vio	deo was interesting (2) o	0	0	0	0	
0	0						
I felt good after watching the video (3)			(3) o	0	0	0	
0	0	0					
The vio	deo reminded me of	a game (4	4) o	0	0	0	
0	0	0					

Q18 Please answer to the following statements

	Strongly disagree (8)	Disagree (9)	Somewhat dis	agree (10)	Neither agree	e nor disagree
(11)	Somewhat agree (12) Agree (13)	Strongly agree	e (14)		
l was c	ompletely focused wl	nile viewing the	video (1)	0	0	0
0	0	0	0			
It was	easy to concentrate o	n the video (2)	0	0	0	0
0	0	0				
The vic	leo grabbed my atten	tion and it has r	maintained it (3	3) o	0	0
	0 0	0	0			
l was c	ompletely absorbed i	n what I was wa	tching (4)	0	0	0
0	0	0	0			

Q19 Please answer to the following statements

	Strongly disagree (8)	Disagree (9)	Somewhat dis	agree (10)	Neither agree	e nor disagree
(11)	Somewhat agree (12) Agree (13)	Strongly agree	e (14)		
I lost tr	ack of time when I w	as watching the	video (1)	0	0	0
0	0	0	0			
When	I finished watching th	e video, it felt li	ke time passed	quickly (2)	0	0
0	0	0	0	0		
l spent	a lot of time watchin	g the video (3)	0	0	0	0
0	0	0				
Time s	eemed to pass very q	uickly when I wa	as using the we	bsite (4)	0	0
0	0	0	0	0		

Q20 Please answer to the following statements

	Strongly disag	ree (8) Disagr	ee (9)	Somew	vhat disagree (10)	Neither	agree	nor	disagree
(11)	Somewhat ag	ree (12) Agree	(13)	Strongl	ly agree (14)					
I forgo	t about my imr	nediate surrou	nding w	hen I wa	as watching th	e video	(1) ()		0
	0	0	0		0	0				
۱ felt ۱	was in the worl	ld the video cre	eated (2)	0	0	()		0
	0	0	0							

_
The video seemed to me somewhere I visited rather than something I saw (3) o								
0	0	0	0	0				
When I finished watching the video, I felt like I come back to the real world after a journey (4)								
0	0	0	0	0	0			

End of Block: Flow experience

Start of Block: Functions

Q21 The video in the website was:

	Strong	ly disagre	e (8)	Disagree (9)	Some	what dis	sagree ((10)	Neithe	r agree	e nor	disagree
(11)	Somev	vhat agre	e (12) /	Agree (13)	Stron	gly agree	e (14)					
Fun (1)	0	(D	0		0		0		0	
0												
Entert	aining (2	2) c)	0		0		0		0		0
0												
Excitin	g (3)	0	(C	0		0		0		0	
0												
Thrillir	ng (4)	0	(C	0		0		0		0	
0												
Enjoya	ble (5)	0	(D	0		0		0		0	
0												

Q22 The video in the website was:									
	Strong	ly disagree	(8) Disagree (9)	Somewl	hat disagree	e (10)	Neither agree	e nor disagree	
(11)	Somew	/hat agree	(12) Agree (13)	Strongly	/ agree (14)				
Inform	ative (1) о	0	(0	0	0	0	
0									
Helpful	l (2)	0	0	0	0		0	0	
0									
Functio	onal (3)	0	0	0	0		0	0	
0									
Practic	al (4)	0	0	0	0		0	0	

_

0									
Necessary (5)	0	0	C)	0	0	C)	
End of Block:	Functions	5							
Start of Block:	Dependo	ent Variable							
Q23 How likel	y would i	t be that you	would						
Extrem	nely unlik	ely (64)	Modera	Moderately unlikely (65)			Slightly unlikely (66) N		ikely
nor unlikely (6	57) 5	Slightly likely	(68) 1	Moderately lil	kely (69)	Extremely like	ly (70)		
Purchase a tra	ivel on W	anderlust (1)	0	0		0	0	0	
0	(C							
Recommend t	his tour o	operator to a	friend (2)	0		0	0	0	
0	(C	0						
Choose to pur	chase on	Wanderlust	tour oper	ator instead o	of other	competitors ir	the futu	re (3) o	
0	(C	0	0		0	0		
Visit Mongolia	a in the n	early future (4) c)	0	0	C)	
0	0	0							
O24 How likel		* h a that							
	y would i	it be that you	would	ikoly (0)	Cliabth	(uplikaly (10)	Noithor	likoly	nor
Extrem		ely (8) Mode	rately uni	ikely (9) tale libale (42)	Slightly	/ unlikely (10)	Neither	пкету	nor
uniikely (11)	Slightly	likely (12)	wodera	tely likely (13) Extrem	iely likely (14)			
Revisit Wande	erlust wel	osite (1)	0	0		0	0	0	
0	(C							
Use the servic	es provic	led by Wande	erlust in tl	ne future (2)	0	0	C)	
0	0	0	C)					

If you had to c	0	0				
0	0	0	0	0		

Q25 On average a tour of 15 days offered on Wanderlust cost 2300€ (without the flights). Do you consider the price adequate?

- o Extremely inadequate (50)
- o Moderately inadequate (51)
- o Slightly inadequate (52)
- o Neither adequate nor inadequate (53)

- o Slightly adequate (54)
- o Moderately adequate (55)
- o Extremely adequate (56)

Q26 Do you consider the tour price...?

- o Extremely cheap (214)
- o Cheap (215)
- o Quite cheap (216)
- o Fair (217)
- o Quite expensive (218)
- o Expensive (219)
- o Extremely expensive (220)

Q27 In your opinion, what is the most appropriate price for the kind of tour offered on the website you have visited?

Q28 I am satisfied with my overall experience on the website

- o Strongly disagree (8)
- o Disagree (9)
- o Somewhat disagree (10)
- o Neither agree nor disagree (11)
- o Somewhat agree (12)
- o Agree (13)
- o Strongly agree (14)

Q29 The website is better than I expected

- o Strongly disagree (8)
- o Disagree (9)
- o Somewhat disagree (10)
- o Neither agree nor disagree (11)
- o Somewhat agree (12)
- o Agree (13)
- o Strongly agree (14)

Q30 The website is a good place to book a travel

- o Strongly disagree (8)
- o Disagree (9)
- o Somewhat disagree (10)
- o Neither agree nor disagree (11)
- o Somewhat agree (12)
- o Agree (13)
- o Strongly agree (14)
- Q31 The website is a good place to discover a destination
- o Strongly disagree (8)
- o Disagree (9)
- o Somewhat disagree (10)
- o Neither agree nor disagree (11)
- o Somewhat agree (12)
- o Agree (13)
- o Strongly agree (14)

End of Block: Dependent Variable

Start of Block: Travel Habits

Q32 I am not interested in daily commuting.

How often do you travel for leisure?

- o Every month (2)
- o Twice a year (3)
- o Once a year (4)
- o Never (5)

Q33 How do you normally plan your travels?

o I plan and book everything by myself (1)

- o I rely completely on a tour operator online (2)
- o I rely completely on a travel agency shop (3)

Q34 How often do you purchase a travel pack online?

- o Always (1)
- o Very frequently (2)
- o Frequently (3)
- o Every once in while (4)
- o Rarely (5)
- o Very rarely (8)
- o Never (9)

Q35 How often do you travel internationally?

- o Always (1)
- o Very frequently (2)
- o Frequently (3)
- o Every once in while (4)
- o Rarely (5)
- o Very rarely (6)
- o Never (7)

Q36 Do you have any favorite travel website?

- o Yes (1)
- o No (2)

Display This Question: If Q36 = 1

Q37 Please, write the name of your favorite travel website

Q38 What was the last destination you visited?

End of Block: Travel Habits

Start of Block: Demographics

Q39 What is your gender?

- o Male (1)
- o Female (2)
- o I do not want answer (3)

Q40 How old are you?

Q41 What is your Country of origin?

Q42 What is the highest level of education you have completed?

- o Middle School diploma (1)
- o High School diploma (2)
- o Bachelor Degree (3)
- o Master degree (4)
- o PhD (5)
- o None of the above (6)
- o I do not want to answer (7)

Q43 Before this questionnaire I was already interested in Mongolia

- o Strongly disagree (8)
- o Disagree (9)
- o Somewhat disagree (10)

-

- o Neither agree nor disagree (11)
- o Somewhat agree (12)
- o Agree (13)
- o Strongly agree (14)

Q44 I have already visited Mongolia in the past

- o Yes (1)
- o No (2)

Q45 I found the experiment boring

- o Strongly disagree (8)
- o Disagree (9)
- o Somewhat disagree (10)
- o Neither agree nor disagree (11)
- o Somewhat agree (12)
- o Agree (13)
- o Strongly agree (14)

End of Block: Demographics

Start of Block: Block 9

Q46 Optional comments section

Q47 Thanks for your participation.

If you want to stay updated on the search results, enter your email.

End of Block: Block 9

_

78 -

_