St. Petersburg University
Graduate School of Management

Master in Management Program

Master thesis

Value of Story-telling Animation in a Website for Brands: Consumer Response in Hedonic and Utilitarian Consumption Contexts.

Student: Ekaterina Andreeva

Research advisor: Professor, Dalman Deniz

St. Petersburg

2021

ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

Я, **Андреева Екатерина Константиновна** студент второго курса магистратуры направления «Менеджмент», заявляю, что в моей магистерской диссертации на тему «**Ценность «рассказывающей» анимации на веб-сайте для брендов: реакция потребителей в гедонистическом и утилитарном контекстах потребления**», представленной в службу обеспечения программ магистратуры для последующей передачи в государственную аттестационную комиссию для публичной защиты, не содержится элементов плагиата.

Все прямые заимствования из печатных и электронных источников, а также из защищенных ранее выпускных квалификационных работ, кандидатских и докторских диссертаций имеют соответствующие ссылки.

Мне известно содержание п. 9.7.1 Правил обучения по основным образовательным программам высшего и среднего профессионального образования в СПбГУ о том, что «ВКР выполняется индивидуально каждым студентом под руководством назначенного ему научного руководителя», и п. 51 Устава федерального государственного бюджетного образовательного учреждения высшего образования «Санкт-Петербургский государственный университет» о том, что «студент подлежит отчислению из Санкт-Петербургского университета за представление курсовой или выпускной квалификационной работы, выполненной другим лицом (лицами)».

_____ (Подпись студента)

_____07/07/2021_____ (Дата)

STATEMENT ABOUT THE INDEPENDENT CHARACTER OF THE MASTER THESIS

I, **Ekaterina Konstantinovna Andreeva** (second) year master student, program «Management», state that my master thesis on the topic **"Value of Story-telling Animation in a Website for Brands: Consumer Response in Hedonic and Utilitarian Consumption Contexts"**, which is presented to the Master Office to be submitted to the Official Defense Committee for the public defense, does not contain any elements of plagiarism.

All direct borrowings from printed and electronic sources, as well as from master theses, PhD and doctorate theses which were defended earlier, have appropriate references.

I am aware that according to paragraph 9.7.1. of Guidelines for instruction in major curriculum programs of higher and secondary professional education at St.Petersburg University «A master thesis must be completed by each of the degree candidates individually under the supervision of his or her advisor», and according to paragraph 51 of Charter of the Federal State Institution of Higher Education Saint-Petersburg State University «a student can be expelled from St.Petersburg University for submitting of the course or graduation qualification work developed by other person (persons)».

_____(Student's signature)

_____07/07/2021_____ (Date)

АННОТАЦИЯ

Автор	Андреева Екатерина Константиновна
Название ВКР	Ценность «рассказывающей» анимации на веб-сайте для брендов: реакция потребителей в гедонистическом и утилитарном контекстах потребления
Образовательная программа	Master in Management
Направление подготовки	Менеджмент
Год	2021
Научный руководитель	Мустафа Дениз Далман Доцент кафедры маркетинга
Описание цели, задач и основных результатов	Цель настоящего исследования – изучить влияние использования «рассказывающей» анимации на сайте продукта на поведение посетителей сайта и потенциальных покупателей в двух контекстах потребления: гедонистическом и утилитарном. Практическая польза выводов, полученных в рамках исследования, состоит в определении параметров поведения потребителей, на которые влияет данный тип анимации, и определении необходимости использования анимации на сайте продукта в целом, а также понимании в каком контексте потребления она будет иметь наибольший эффект. Согласно исследованиям, анимация – один из факторов интерактивности веб-сайта. Как правило, чем выше уровень интерактивности сайта, тем лучше реакция потребителя. Однако, в силах ли «рассказывающая анимация» в отдельности значимо повлиять на восприятие? Данное исследование с помощью экспериментального метода доказывает, что использование данного типа анимации значительно улучшает состояние потока, в которое погружается пользователь, а также увеличивает эффект сарафанного радио. В то же время сайты продуктов, потребляемых для удовольствия, в значительной степени выигрывают от того, что человек воспринимает анимацию сайта как «рассказывающую историю» в сравнении с сайтами продуктов утилитарного характера.
Ключевые слова	Сарафанное радио, контекст потребления, поведение потребителей, состояние потока, анимация

ABSTRACT

Master Student's Name	Ekaterina Konstantinovna Andreeva
Master Thesis Title	Value of Story-telling Animation in a Website for Brands: Consumer Response in Hedonic and Utilitarian Consumption Contexts
Educational Program	Master in Management
Main field of study	Management
Year	2021
Academic Advisor's Name	Mustafa Deniz Dalman, Associate Professor Marketing Department
Description of the goal, tasks and main results	The aim of this research was to study the effects of story-telling animation in a product website on the consumer and potential customer behaviour in the two consumption contexts: hedonic and utilitarian. Practical implications of the research lie in identification of the parameters of consumer behavior influenced by the introduction of this kind of animation. The study aimed at identifying whether the investment into story-telling animation will buy off and create any effects worth pursuing and understanding whether websites of products belonging to different consumption contexts should be treated differently. According to the study animation is an essential part of the website interactivity. Usually the higher the interactivity level, the better consumer response will be. However, is animation in itself capable of creating particular effects on consumer behavior? This study experimentally shows that story-telling animation used in the website increases the flow experience of the users and increases word-of-mouth intentions. At the same time, websites promoting hedonic product categories benefits from this type of animation significantly higher compared to utilitarian product websites.
Keywords	Word-of-mouth, consumption context, consumer behaviour, flow experience, story-telling animation

Content

1. INTRODUCTION

1.1. Relevance of the study

The digital landscape nowadays is becoming more and more saturated, with consumers becoming more demanding to the way brands present themselves (Perkins & Fenech, 2014). It is almost common knowledge that digital presence has become a must, and brands today strive to analyze what approaches and features can bring additional value and enhance the user experience to secure their competitive position.

This research paper focuses on one of the ways how brands can enhance the customer experience and build strong image in the web. In particular, it looks into when and how story-telling animation as a part of website features can increase the online flow experience of users, add value to the website content and help form a positive attitude on customer side, thus delivering better results compared to static information presentation in the web. Story-telling animation is a tool to tell more about the brand or product by presenting the information in a way that users' page scroll becomes an interaction which triggers movement. It is supposed to present the product in an interest-capturing way. The good example of such animation can be any website dedicated to presentation of new Apple products[1], the landing page not only presents the product features, but also lets the website visitor dive into the tricks and twists of their animated presentation.

Well-developed interactivity of a website along with animation can bring both practical and enjoyable benefits to brands. Animation is no longer just a delightful feature that can be added to a website, it is a tool to generate more leads and even word-of-mouth effect around a brand.

The discussion about how story-telling animation affects consumer behavior is particularly relevant when considering brand and advertising websites, since it is crucial to present the products to the best way possible and attract users' attention there. Story-telling animation is capable of enhancing the online flow experience of the consumers, the way they perceive the products presented in the website and attitude towards a brand in general, or it can help guide the customer through the product information more effectively while creating sense of delight which people will want to talk about.

[1] www.apple.com/ru/iphone-11/

1.2. Research gap

Multiple research study the influence of interactivity features on consumer behavior and cognitive effects produced by it. However, there are few research papers dedicated to animation as an interactive tool and its impact on marketing goals or managerial implications of using it. Moreover, there are no scientific works on how animation features can enhance the online flow experience, user engagement of the customers or trigger word-of-mouth effects. Another topic, which is not covered in other research papers, is how the consumption context influences the perception of the brand website and word-of-mouth effects.

It is also important to mention that the experiments in existing studies do not match current scope of interactivity provided by the website constructors. At the moment, a website constructor like Tilda can provide the level of interactivity and animation features unprecedented for the studies conducted in the past decades, therefore there is a big field of possibilities that are open for the experimental part of this research.

1.3. Research questions

In order to cover the above-mentioned theoretical research gap, it is necessary to answer the following research questions:

When and how story-telling animation as a part of website features can increase (1) the online flow experience of users, (2) user engagement and (3) willingness to buy the product presented there?

How the story-telling animation in the brand website influences the word-of-mouth effects around the brand?

How effects of story-telling animation introduction differ within different consumption contexts (i.e., hedonic and utilitarian)?

2. LITERATURE REVIEW

This literature review will first examine the concept of website interactivity and study how it is defined and decomposed in various research papers. After that, the study will show the structure of factors that influence the perception towards a website, diving deeper into the online flow experience of the user create by the interactivity of the website. Then it will look into the role of animation as a tool to increase the quality of interactivity, and what types of animations can be used on the website with focus on story-telling animation type which then will be used in the experimental phase. Then the paper will give a brief overview on two consumption contexts of the websites, i.e., hedonic and utilitarian ones. Finally, the works on word-of-mouth effect will be analyzed, since well-developed story-telling animation can trigger emotional arousal and willingness to share the information about the brand website thus disseminating awareness about the product presented there.

2.1. Discussion on Interactivity and Perceived Interactivity of a Website

There are multiple research papers dedicated to website interactivity, which show that the concept of interactivity can become a stumbling block for a researcher in this field, since there is no unanimity in its definition. Below are some of the definitions given in different research papers.

"Interactivity is the extent to which users can participate in modifying the form and content of a mediated environment in real time" (Steuer, 1992). This definition concentrated on real-time participation of the user.

"Interactivity is the degree to which a person actively engages in advertising processing by interacting with advertising messages and advertisers" (Cho and Leckenby, 1999). This definition focuses on communication and information exchange between individuals and advertisers.

However, if we define that in this research, we want to focus on how brand website interactivity is defined in marketing context we can base ourselves in the definition given by Liu and Shrum (2002). Website interactivity is "the degree to which two or more communicating parties can act on each other, on the communication medium, and on the message and the degree to which such influences are synchronized" (Liu and Shrum 2002). This definition encompasses the fact that interactivity implies communication between the user and the website as a communication medium, along with the fact that this communication can happen in real-time or with response delayed in time.

According to research, interactivity is a multifaceted concept that implies three dimensions (Liu and Shrum 2002, Song and Zinkhan 2008). The first one consists in two-way communication between brand website and the website user: in-built online consultants, forums, etc. The second one refers to the possibility of website content control, such as language choice, filtering options, download features, etc. The third one refers to the speed of response: whether the interactive process occurs in real-time or not.

Since communication between the website and potential customer is a two-way street, it is important to understand how the latter perceive the website interactivity. McMillan (2002) defines two models of interactivity: perception-based and feature-based. He finds out that the perception-based model is a better predictor of attitude toward the website and perceived relevance of the subject of the website than the feature-based model. McMillan, Hwang, & Lee, G. (2003) also found out that perceptual (in other words, perception-based) factors seem to be better predictors for attitude towards a website than structural (in other words, feature-based) variables.

Wu (2006) gives a very well thought and detailed decomposition of the perceived interactivity (PI_{site}) of websites. The research proposes a conceptual framework to define PI_{site}, by dividing its antecedents into three factors that rely on traditional consumer behavior research. The first factor outlines "Website factors" (object), the second one is "Site-visitor factors" (person), and the third one is "Situational Factors" (situation). These antecedent factors respectively result in "Web Traffic Measures", "Attitudinal Measures", and "Behavioral Measures" that serve as variables to monitor how users perceive their activity on a website.

Let us decompose the factors given above into a comprehensive structure and decompose it one level deeper basing in Wu (2006) research in the Table 1.

Table 1. A conceptual framework for antecedents and consequences of PI_{site}

Antecedents	Consequences
Website Factors: • (Actual) interactivity • Vividness • Design	**Web Traffic Measures:** • Page views & Time • Processing Intensity • Processing Efficiency

Site-visitor factors: • Personality traits • Product Knowledge • Web Skills	**Attitudinal Measures:** • A_{site}, A_b, Recall • Cognitive Responses • Affective Responses
Situational factors: • Visit motivation • Access Speed • Visit Location	**Behavioral Measures:** • Online inquiries • Purchase intention • Purchases

We can see that perceived interactivity depends on multiple factors along with actual interactivity features. Therefore, it is crucial to fix situational antecedent factors so that they remain constant, and account for site-visitor factors when designing and analyzing the results of the future experiment.

After conceptualizing the framework for antecedents and consequences of PI_{site} Wu (2006) goes further and gives the definition to the perceived interactivity and states three dimensions of the PI_{site}:

(1) perceived control
   a. over the site navigation,
   b. over the pace or rhythm of the interaction
   c. over the content being accessed

(2) perceived responsiveness
   a. from the site-owner
   b. from the navigation cues and signs,
   c. from the real persons

(3) perceived personalization of the site
   a. as if it were a person
   b. as if it wants to know the site visitor
   c. as if it understands the site visitor

2.2. Perceived Interactivity & Online Flow

Research shows that perceived interactivity of the website is not only able to cause consumers to form a positive attitude toward the website, but also is able to create further affective response. High degree of interaction between the user and brand website content keeps the potential customer interested and prevents them from logging off (Gao, Bai, & Park 2017). Noort, Voorveld & Reijmersdal (2012) give evidence that website interactivity is able to provide the experience of online flow (i.e. the experience of focus and total involvement in the browsing process), based on experimental study they indicated that individuals who perceived higher levels of web site interactivity, experienced flow more intensely, which resulted in more positive affective responses.

Flow is a kind of psychological experience that is experienced by person who is actively involved into the process, feeling excitement or joy (Csikszentmihalyi & Csikszentmihalyi 1975). This excitement that the experience of flow brings is considered to be an "optimal experience", when the person loses track of time and even his or her identity (Csikszentmihalyi 1990). According to Chou and Ting (2003) flow experience gives enhances consumers' confidence and encourages exploration.

According to various research papers there are multiple dimensions of flow perceived by an individual:

- **Concentration**

  Research by Csikszentmihalyi (1990) claims that it is impossible to achieve the flow state without concentration. The person should be absorbed into the activity in order to complete it.

- **Enjoyment**

  The same research by Csikszentmihalyi (1990) argues that subsequent to concentration and completion of the task the person may feel rewarded and embrace the achievement.

- **Time distortion**

  According to Hoffman and Novak (1996) it occurs when consumer becomes deeply involved in the flow and feels that the time flies more quickly than usual.

- **Curiosity**

  This dimension means the consumer is interested in gaining more information about the topic (Litman 2005). It also influences exploratory behavior and makes the user pay closer attention and focus in a more intensive way (Kashdan & Steger 2007).

With regard to online flow, according to the research by Huang (2006) the experience can be also described through four factors:

- Perceived control over the interaction;
- The extent to which one's attention is focused on the interaction;
- The user curiosity, aroused by the interaction;
- The extent to which the user experiences the interaction as intrinsically interesting.

The effect of flow is an underlying principle of website interactivity; therefore it is important to be able to moderate and harness it (Noort, Voorveld, & Reijmersdal, 2012). The question is what tools can be used to increase the effect of flow?

2.3. Website Animation as an Interactivity Tool

The answer to the question above lies in human nature. Human brain is hardwired to attend to movement, the roots of this lie in our fight or flight response, which still holds true now regardless of the lifestyle we have (Snowden & Freeman, 2004). Modern technology allows incorporating animation into websites thus taking advantage of this peculiarity of our brain's nature. Motion in a website can attract attention to the important things and guide the attention of the user, thus enhancing the online flow of the user (Moss, 2018).

Animation can make a website come alive and make it mimic the real-world interactions (Schlienger, Conversy, Chatty, Anquetil & Mertz, 2007). If applied correctly, animation can act as a reward for interaction and stimulate the user to spend more time on a website or be more prone to conduct the target action (Hong, Thong, & Tam, 2004). Obviously, it is useless to assign random animations to website elements and wait that it will improve conversion rate or generate word-of-mouth effect. As with every action, the application of animation should be carefully considered.

There are different types of animations that can be used in websites: interface element animation (most common and well-spread), waiting animation, story-telling animation and decorative one (Moss, 2018). Let us dive deeper into what these types are about and why they are used in websites.

1. **Interface element animation** – the animation that gives users a feedback that a website registered an action. For example, when user clicks on a button, sidebar, or other structural element of a website the element will change in size or color.
2. **Waiting animation** – another feedback animation type that shows that a process is in progress to avoid user frustration from indefinite waiting time. It signals the user that

website feature is working correctly, but it will take some time to load or launch, so there is no need make any additional clicks or taps.

3. **Decorative animation** – usually this kind of animation simply exists on a website but has no concrete purpose other than to bring delight.
4. **Story-telling animation** – is designed to tell more about the brand or product by presenting the information in a way that users' page scroll becomes an interaction which triggers movement. Though it is not supposed to improve usability, this type of animation is sometimes applied for brand value creation purposes, but the influence of its implementation was never quantified, which is the main reason why it is selected as an independent variable for the research.

2.4. Hedonic and utilitarian consumption purposes of a website

The consumption experience can be characterized in two different ways: it can be more rational, or more emotional (Adaval, 2001; Alba and Williams, 2013). This division results in two attitudes that can prevail in an individual's consumer journey: hedonic and utilitarian, this division was indicated by Voss, Spangenberg and Grohmann (2003), and it holds true both for offline and online consumption.

The utilitarian consumption implies rational assessment of the product by customer while making a purchase, it is more goal-oriented and focuses on functional characteristics of a product (Dhar & Wertenbroch, 2000). Utilitarian value of the product can be described as the degree to which the predetermined shopping targets were met, concerning obtained advantages and experienced sacrifices (Lim, 2017; Wu & Li, 2018). Utilitarian attitude is dominated by logical reasoning, whereas hedonic attitude is typically based on emotional attachment. Hedonic consumption is driven by an intrinsic motivation for sensual experience, enjoyment, and emotional arousal (Davis, Bagozzi, &Warshaw, 1992).

When it comes to brand websites, the product / brand they present will be perceived from one of these two viewpoints. Whether people are looking for a product to buy or simply browsing for information about it they experience one of the two contexts, which consequently influences the way they perceive the information they receive.

There are multiple studies on how hedonic and utilitarian attitudes influence the consumer behaviour. Kivetz & Zheng (2017) outline that "promotions are more effective in driving purchase decisions when (1) the product is hedonic rather than utilitarian (2) the product is framed as more hedonic". Kronrod & Danziger (2013) in their research show that usage of figurative language in

hedonic consumption context lead to more favourable consumer attitude and has no influence in utilitarian context. According to research conducted by Berger and Schwartz (2011), hedonic products receive more word-of-mouth referrals than utilitarian ones.

These two contexts seem to have significant influence on the way the information presented on the website will be treated by the user. It is expected that story-telling animation on the websites that present the brand / product, to which the user has hedonic attitude, will have stronger influence on the user rather than on those, to which the user has utilitarian attitude.

2.5. Word-of-mouth effects created by animation

Social talk generates more than 3.3 billion brand impressions each day (Keller & Libai 2009). This being said, word-of-mouth marketing has become one of the burning topics among scientific community, researchers strive to understand why some products are talked about more than others are and try to quantify this phenomenon. Various research papers argue that word-of-mouth effect is several times more effective than traditional advertising. In particular, Sasser (1990) indicated that word-of-mouth effect can be twice as big as the effect of advertising. The research conducted later by Hogan et al. (2004) estimated this effect to be three times more effective. Another research by Trusov et al. (2009) indicated that in the web word of mouth is thirty times more effective for clients acquisition that traditional media.

First, Word-of-mouth (WOM) was described as an oral form of non-commercial communication between people who were previously personally acquainted with each other, namely family, friends or acquaintances. (Arndt, 1967). By recent definition word-of-mouth (WOM) is the process of exchanging information or opinions regarding a product or service between consumers (Chen, Liu, Fang & Lin, 2013). WOM can be exchanged from person to person through oral or written expression.

Later, Electronic word-of-mouth (eWOM) concept emerged, extending the opinion sharing far beyond personal acquaintance dimension and including experiences and opinions shared through the internet (King, Racherla, & Bush, 2014). eWOM includes the comments shared with friends through social media, reviews on special review platforms, etc.

Word-of mouth can be positive, neutral, or negative. (Anderson, 1998). The example of positive word of mouth can be pleasant and satisfied reviews, recommendations to other people and sharing the positive experience in the web, social media or via online reviews (electronic word-

of-mouth - eWOM). Negative word of mouth can include spreading the information about dissatisfactory experience or product, poor communication about it both online and offline.

In the research conducted by Berger (2014), the author looks into the psychology, which underlies individual's decision to share. According to Berger (2014) word of mouth "serves five key functions: Impression Management, Emotion Regulation, Information Acquisition, Social Bonding, and Persuading Others". He also outlines that WOM can be driven by several motives at a time, for example, a person can share information about a product both for impression management purposes (e.g., to look smart) and to build good communication with others (e.g., social bonding).

Each of the before mentioned functions of word-of mouth is supported by various motives and have certain effect on the type of content shared by an individual (Berger, 2014). The table below (Table 2) shows the full spectrum of functions of WOM for the transmitter along with their components, as well as how each function influences the type and peculiarities of the type of content that is being shared.

Table 2. The five functions of word of mouth (for the transmitter)

Function	**Components**	**Effects on Sharing**
Impression Management	Self-Enhancement Identity-Signaling Filling Conversational Space	+ Entertaining content + Useful information + Self-Concept relevant things + High status things + Unique and special things + Common ground + Accessible things + When aroused Shapes content valence
Emotion Regulation	Generating Social Support Venting Facilitating Sense Making	+ Emotional Content + Arousing Content Shapes content valence

	Reducing Dissonance Taking Vengeance Encouraging Rehearsal	
Information acquisition	Seeking Advice Resolving Problems	+ Sharing when decisions are important or uncertain +Sharing when alternative info is unavailable or untrustworthy
Social Bonding	Reinforcing Shared Views Reducing Loneliness and Social Exclusion	+ Common Ground Content + Emotional Content
Persuasion	Persuading Others	+ Polarized Content + Arousing Content

The influence of WOM is found to be different across various product types. According to research conducted by Berger and Schwartz (2011), hedonic products received more WOM than more utilitarian ones. Therefore, there is a significant relationship between hedonicity of the product and the amount of WOM referrals it can generate.

Berger and Schwartz (2011) also found out that there are three characteristics of products that shape WOM referrals, namely being cued (i.e., how frequently might the surrounding environment cue or remind people to think about the product), being publicly visible, and being interesting. They also looked into how these characteristics influence WOM over different time horizons: the immediate and ongoing one. Immediate WOM implies how much the product is spoken about right after people experience it, ongoing WOM means how much people talk about the experience after some time passed. It turned out that Public Visibility and products that have Cues in the surrounding environment can generate both immediate and ongoing WOM, with cued products receiving more ongoing than immediate WOM, whereas publicly visible products generated more immediate WOM than ongoing one. Overall, publicly visible products tend to generate higher volumes of Immediate WOM compared to Cued or Interesting products. When it comes to interesting products people were only prone to talk about them right after the experience, showing immediate WOM, and never returned to it when time passed (Figure 1).

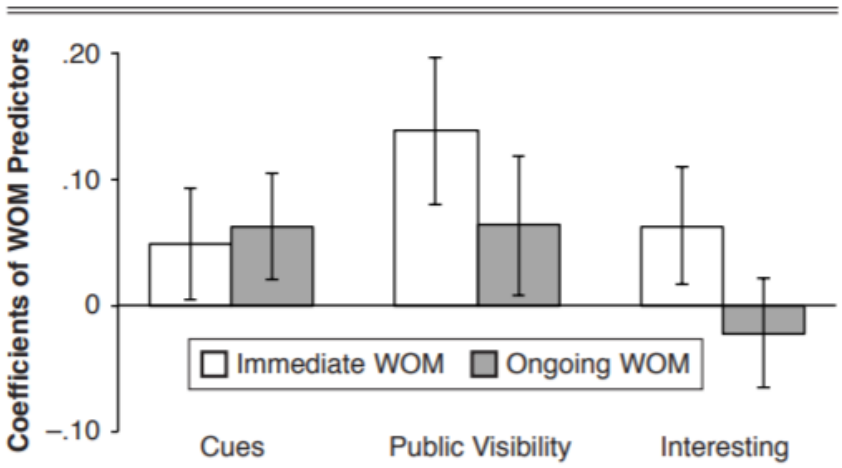


Figure 1. Relationship Between product characteristics and WOM over different time horizons

Therefore, in this research paper we will focus on positive WOM that can be created by applying story-telling animation in a website, since negative WOM is not something to be implied when creating a brand website. It also interesting to understand to which of the three above mentioned characteristics people will tend to attribute story-telling animation.

Story-telling animation can trigger the individual to share the website because he/she can consider it arousing, entertaining or emotional. As we can derive from the Table 2 people can share arousing content for Impression Management, Emotion Regulation, Social Bonding or Persuasion purposes.

Moreover, since we want to analyze how a website can generate WOM referrals it is important to understand the context of sharing. When visiting an emotionally arousing website a person may share the information about it both offline and online. Sharing offline will imply showing the screen to another person, so most probably the person will show it to other person who he/she has strong ties with. When it comes to online, a person can share the link with the friends via social media, repost it or talk about it in the blog, or save the link to share it later. In this research, a stronger focus will be on WOM, which is generated online (eWOM), since it has more chances to become viral and spread awareness about the product / brand it presents. We will also dive into how the WOM triggered by the website is prone to emerge over time, whether it will receive more immediate or ongoing WOM.

2.6. Research hypotheses

Summing everything up, this literature review investigates how story-telling animation used in brand websites can improve brand communication and create word-of-mouth effect in different consumption contexts. First, we look into website interactivity in general, and how interactivity perceived by the user is built up. Then we define the effect of flow as an underlying principle of website interactivity. The effect of flow can be increased through attention to movement that is hardwired in human's brain, so we go on to investigate website animation as a powerful tool for building interaction. Finally, we look into different consumption contexts that can influence the behavior of website users and define how animation types can influence the word-of-mouth effects around brands.

With respect to the research questions outlined in the introduction and basing the assumptions in the Literature Review several hypotheses were formulated:

H1: *Introduction of a story-telling animation into a website will increase user engagement compared with static version of the same website. More specifically:*

H1a: Introduction of a story-telling animation into a website promoting a hedonic product will increase stimulate user engagement compared with static version of the same website.

H1b: Introduction of a story-telling animation into a website promoting a hedonic product will increase stimulate user engagement compared with static version of the same website.

H2: *Story telling animation used in a brand website will increase the online flow experience of the users. More specifically:*

H2a: Story telling animation used in a hedonic product website will increase the online flow experience of the users.

H2b: Story telling animation used in a utilitarian brand website will increase the online flow experience of the users.

H3: *Story-telling animation in the brand website will increase the positive word-of-mouth intention around the brand.*

H3a: Story-telling animation in the hedonic product website will increase the positive word-of-mouth intention around the brand.

H3b: Story-telling animation in the utilitarian product website will increase the positive word-of-mouth intention around the brand.

H4: *Story telling animation will increase users´ willingness to buy the product presented in the website.*

H4a: Story-telling animation will increase users´ willingness to buy the product presented in the hedonic product website.

H4b: Story-telling animation will increase users´ willingness to buy the product presented in the utilitarian product website.

H5: *Story telling animation will cause more significant positive word of mouth intention in the websites which have hedonic context than those which have utilitarian one.*

H6: *Story telling animation will cause more significant willingness to buy the product presented in the website in hedonic context than in utilitarian one.*

3. RESEARCH MODEL AND METHODOLOGY

3.1. Research methodology

A reliable way to test these hypotheses is to conduct an experiment. In an experiment, the researcher selects independent and outcome variables and manipulates them 'ceteris paribus'[2]. According to Tull & Hawkins (1984) experimentation is 'the manipulation of one or more variables by the experimenter in such a way that its effect on one or other variables can be measured'.

After the hypotheses have been defined the experimental part of this paper can be executed through several steps which include identifying the product categories to analyze with the help of pretest, identifying the dependent and control variables, creating the websites and feedback surveys, recruiting the control and test sample groups, collecting the data at scale necessary for drawing valid decisions, performing the experiment according to the experiment design, analyzing the raw data by statistical means and drawing conclusions based on the data.

The pretest would mean selecting several product categories that are believed to belong to the hedonic and utilitarian consumption contexts, verifying whether it is indeed true and selecting a pair of product categories most appropriate for the experiment.

The experiment in its turn would require a setup where a user could land on the website of the product presenting one of the two preselected product categories with prior explanation of the experiment rules and give feedback on the experience of the visit. The participant would not know neither the dependent variables nor the parameter which is being manipulated. Each website will have two versions, where two groups of participants will be channeled, the control group and the test one. After the necessary number of answers to each survey is accumulated it would be possible to test the hypotheses mentioned earlier via the set of statistical tests.

3.2. Pretest. Selection of product categories

3.2.1 Pretest Design

In order to select the product categories for further development of the experiment 2 pretest surveys were conducted. The total amount of responses counted 68 people (2 surveys, 1 for

[2] Latin phrase that means "all other things being equal"

hedonic product categories, 1 for utilitarian product categories, 36 and 32 respondents respectively, 2 product categories per survey). The average age of participants was 24 y.o. and 74% were female. The scales used in the pretest surveys have been used previously in the research conducted by Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003), which proved that it is possible to measure consumer attitudes when it comes to utilitarian and hedonic consumption contexts by using evaluative semantic differential (SD) scales.

Each survey included 2 product categories of one of the consumption contexts. The first survey tested the preselected utilitarian product categories: Microwaves and Printers. The second survey focused on preselected hedonic consumption product categories: VR Sets and Audio Systems. The aim of the surveys was to collect participant's opinion on how they perceive the pre-selected categories, find if the responses of people will be different depending on what product they see in the survey. In each survey the participant would first be asked to look at the picture of the product as, for example, a VR Set and then proceed to answering the set of questions about the product perception, after that in the next part of the survey the participant would be asked to look at the second product category as, for example, Audio System, and proceed to giving opinion on that product category, too. The survey used the Likert Scale (1-7) to measure the responses.

The survey included ten evaluative SD questions to test the hedonic versus utilitarian consumer attitude towards a product category. The scale used was developed by Voss et.al., (2003), the authors managed to come up with reliable, generalizable, and non-lengthy scale to compare the hedonic and utilitarian dimensions to brand attitude. The authors mention that the scale has demonstrated its value to marketing researchers compared to one-dimensional measure of brand attitude.

The following scales were used to test the utilitarian attitude:

- Effective (1) / Ineffective (7)
- Helpful (1) / Unhelpful (7)
- Functional (1) / Not Functional (7)
- Necessary (1) / Unnecessary (7)
- Practical (1) / Impractical (7)

Scales to test hedonic attitude:

- Not Fun (1) /Fun (7)
- Dull (1) / Exciting (7)

- Not Delightful (1) / Delightful (7)
- Not Trilling (1) / Thrilling (7)
- Unenjoyable (1) / Enjoyable (7)

Apart from that it also included four questions measuring consumer involvement, question on product knowledge and buying experience with the product as well as age and gender questions.

Scale to measure consumer involvement (Mittal, 1989):

- In selecting from the many types and brands of this product available in the market, would you say that: I would not care at all as to which one I buy (1) / I would care a great deal as to which one I buy (7)
- Do you think that the various types and brands of this product available in the market are all very alike or are all very different? They are alike (1) / They are all very different (7)
- How important would it be to you to make the right choice of this product? Not at all important (1) / Extremely important (7)
- In making your selection of this product, how concerned would you be about the outcome of your choice? Not at all concerned (1) / Very much concerned (7)

Question to measure product knowledge:

- How much do you know about microwaves? Not much (1) / Very much (7)

Question to measure buying experience:

- How much experience do you have in buying a microwave? Not much (1) / Very much (7)

General questions:

- What is your age?
- What is your gender?

The preselected product categories were given thoughtful consideration before being used for the pretest and include the following products (hedonic or utilitarian attitude shown respectively):

1. VR Set, hedonic product category
2. Audio System, hedonic product category

3. Microwave, utilitarian product category

4. Printer, utilitarian product category

3.2.2. Pretest Analysis

To understand whether the products in the pretest belong to different consumption contexts a set of statistical analyses has been run. The goal of the analysis is to identify one hedonic and one utilitarian product category that would be later used in the experimental part.

Analyzing consumer attitude towards selected product categories

To identify whether consumer attitude to a product category is hedonic or utilitarian the utilitarian-focused questions of the questionnaire were combined into one scale, the same procedure was performed for the hedonic-focused questions. Scale Reliability Test served as tool to understand whether the new scale is reliable. The test calculated Cronbach's alpha higher than 0,7 in both cases (0,877 for utilitarian questions and 0,888 for the hedonic ones) which shows that the combined scales are reliable. Having proven the reliability of the scales for both utilitarian and hedonic consumption contexts, the author could proceed to executing the further analysis based on the introduced unified scales. The new scales were named 'Total Hedonic' and 'Total Utilitarian'.

Paired-Samples T-test was further used to look into inside each survey and compare the product categories considered belonging to the same consumption contexts. The mean difference between the selected hedonic product categories (VR Set, Audio System) is statistically significant at $\alpha = 0,05$. Therefore, VR Set and Audio System product categories significantly differ in terms of hedonicity perceived by the consumers. In order to understand whether the difference is large or small Cohen's D was calculated. Cohen's D equal to 0,245 showed a roughly small effect.

Table 3. Paired samples t-test results for product category pairs within each consumption context

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			

Pair 1	VR Set (hedonic) & Audio System (hedonic)	2,9000	1,4115	,2495	2,3911	3,4089	11,623	31	**,000**
Pair 2	Microwave (utilitarian) & Printer (utilitarian)	,0629	1,4583	,2465	-,4381	,5638	,255	35	**,800**

Judging by the means calculated in Paired Samples Statistics, VR Set product category is perceived as more hedonic rather than Audio System (5,694 for VR Set category versus 2,794 for Audio System, where the number closer to 7 signals hedonicity). VR Set product category was selected for further research as it has stronger hedonic consumers' attitude.

The mean difference between the selected utilitarian product categories (Microwave, Printer) is not statistically significant at $\alpha = 0.05$. Therefore, both product categories are perceived utilitarian to the same extent.

Later an **Independent-Samples T-test** test was used to identify whether there is indeed significant difference in consumers' perception of the product categories belonging to different consumption contexts.

Based on paired-samples t-test we can limit the analysis to one hedonic product category – VR Set and compare the perception among the following pairs:

- Pair 1: VR Set (hedonic) – Printer (utilitarian)
- Pair 2: VR Set (hedonic) – Microwave (utilitarian)

The results of the test for Pair 1 and 2 show that there is a significant difference between the means, which means that the VR Set and Printer/Microwave product categories do belong to different consumption contexts (hedonic and utilitarian).

Analyzing consumer involvement

The analysis of the pretest data showed that the four items within the initial scale of Consumer Involvement may not be measuring the same underlying construct and are not unidimensional. The factor analysis uncovered the underlying pattern and which questions explain the same construct.

Table 4. Factor analysis of consumer involvement scale items

Factor	Item	Component		Cronbach's Alfa
		1	2	
Factor 1	In selecting from the many types and brands of this product available in the market, would you say that: I would not care at all as to which one I buy (1) / I would care a great deal as to which one I buy (7)	,471	-,722	-,160
	Do you think that the various types and brands of this product available in the market are all very alike or are all very different? They are alike (1) / They are all very different (7)	,456	,744	
Factor 2	How important would it be to you to make the right choice of this product? Not at all important (1) / Extremely important (7)	,906	,016	0,806
	In making your selection of this product, how concerned would you be about the outcome of your choice? Not at all concerned (1) / Very much concerned (7)	,844	-,017	

This led to limiting the initial list of four questions measuring consumer involvement to two questions that proved to be unidimensional together (Cronbach's Alpha equal to 0,806):

- How important would it be to you to make the right choice of this product?
- In making your selection of this product, how concerned would you be about the outcome of your choice?

When running statistical analysis these two questions were forming the Consumer Involvement scale, while two others were left out.

Comparison of product categories

Based on the previous analysis it is necessary to compare the following product pairs in terms of Consumer involvement, Product Knowledge and Buying Experience:

- Pair 1: VR Set (hedonic) – Printer (utilitarian)
- Pair 2: VR Set (hedonic) – Microwave (utilitarian)

According to the **independent-samples t-test** there is no significant difference between the products within Pair 1 (VR Set and Printer product categories) in terms of Consumer Involvement and Product Knowledge ($p > 0,05$), however there is significant difference in Buying Experience ($p < 0,05$). With respect to Pair 2 the independent-samples t-test showed that there is no significant difference between VR Set and Microwave product categories in terms of Consumer Involvement and Product Knowledge ($p > 0,05$), however there is significant difference in Buying Experience ($p < 0,05$).

Table 5. Independent samples t-test results for product category pairs across different consumption contexts

Pair	**Dimension**	**t**	**df**	**Sig. (2-tailed)**
Pair 1: VR Set (hedonic) – Printer (utilitarian)	*Consumer involvement*	,188	66	,852
	Product knowledge	-1,359	66	,179
	Buying experience	-3,241	66	,002
Pair 2: VR Set (hedonic) – Microwave (utilitarian)	*Consumer involvement*	1,391	66	,169
	Product knowledge	,790	66	,432
	Buying experience	-2,110	66	,039

The analysis gives the freedom to choose any of the utilitarian product categories to proceed with the experimental part. Based on the knowledge about the existing product categories and prerequisites for 'ceteris paribus' manipulation of the animation parameter during the experiment the author opted for the first pair to proceed with the experiment: VR Set and Printer product categories. These two categories have better potential for being presented most similarly during the development of the product websites, especially having the animation development in mind.

3.3. Experiment

3.3.1. Method

The hypotheses are tested through the study within the context of product websites for the two product categories which were selected earlier: VR Set and Printer product categories. Due to the pandemic circumstances the setup of the experiment was planned to cover the whole process online without any presential. In order to standardize the experiment procedure, the participants were asked to use only their laptop or personal computer and avoid distractions while completing the experiment. The introduction message in each case was framing the expectations with regards to the length of the experiment and the procedure to complete it. To test the hypotheses the respondents were asked to visit the experiment website specially developed for the seamless experience of the user. The selected approach implied 'one website for all steps of the experiment' and had its goal in reducing distraction and providing guidance to the participant in times when there was no opportunity to hold the experiment presential or explain the experiment guidelines in person. The length of the experiment varied depending on the participant, however the average time to complete counted around 8 minutes.

In total, four websites were created specifically for the sake of the experiment, two for the VR Set category (hedonic), and two for Printer category (utilitarian). In each category the animation parameter was manipulated, meaning one website was completely static (control group) while the second one was animated (see Figure 2).

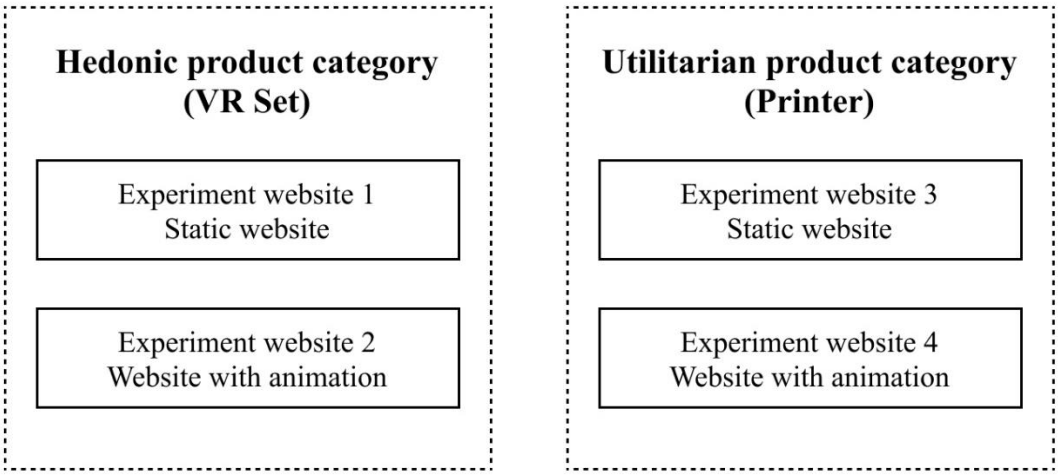


Figure 2. Experiment setup

The websites inside the product category contained the same content, whereas the websites across categories were developed in such a way so that the content seems as similar as possible in

terms of the tone of voice, line length and strength of the descriptions used for the product presentation, which you can see in the Table 5. Most of the descriptions have similar structure and text content except for the name of the product. However, due to the differences of the product characteristics it was impossible to create the characteristics description that would be completely similar without losing authenticity and real-life feel of the landing page, it this case the strength of the descriptive words was considered, so that neither of the pages creates unnecessary bias.

Table 6. Comparison of the text content of the websites

	Hedonic product category	**Utilitarian product category**
Headline	This VR Set will exceed your expectations	This Printer will exceed your expectations
Button	Learn more	Learn more
Characteristics	• Next level hardware 6 GB of RAM inside and 64/256 GB of storage • Cinematic sound Hear in all directions with built-in speakers that deliver cinematic 3D positional audio • Easy Setup Setup the device in 2 minutes and go straight to the experience	• Incredible page yields Print up to 7000 pages using a single set of colour bottles. • High quality prints Hybrid ink system for sharp print and dye-based colours for vivid borderless photos up to A4. • Easy Setup Setup the device in 2 minutes and go straight to work
Highlight	All-in-one VR package system with blazing fast processor and next-generation graphics.	All-in-one compact, reliable, refillable printer with high yield inks for next-generation low-cost printing.
Call to action	Explore inspiring games and unparalleled gaming freedom. For 300 eur	Explore true reliability and unparalleled printing freedom For 300 eur

The pictures chosen to represent respective products had similar neutral mood and quality level, the product photographs did not include any type of brand logo or identity. Each product had two angles used in the website design.

VR Set **Printer**

Figure 3. Selected product photos

After the preparatory steps have been completed the real websites were created. First the layout of the webpages was developed and finalized in Figma, a product for web-interface designers. After the final design was ready, the real webpage was developed with the help of a popular website constructor Tilda. This website constructor provides the tools for creative freedom for those people who want to create a website without any prior CSS or HTML knowledge, it has vast choice of functional blocks, integrated services, including outstanding tool called 'Zero Block' to create custom animations.

The website was published on a free domain belonging to Tilda.ws, for better understanding of the website layout and structure click: http://thesisexperiment.tilda.ws/vr-d-step1.

Each respondent that chose to participate in the experiment was channeled to one of the websites that had the following structure:

- Step 1: Introduction page

- Step 2: Product landing page
- Step 3: Feedback form

Below you will find the detailed description of each step.

Step 1: Introduction page

The page welcomed the participant, formed the expectations about how long it will take to complete the experiment and explained the 'rules of the game'.

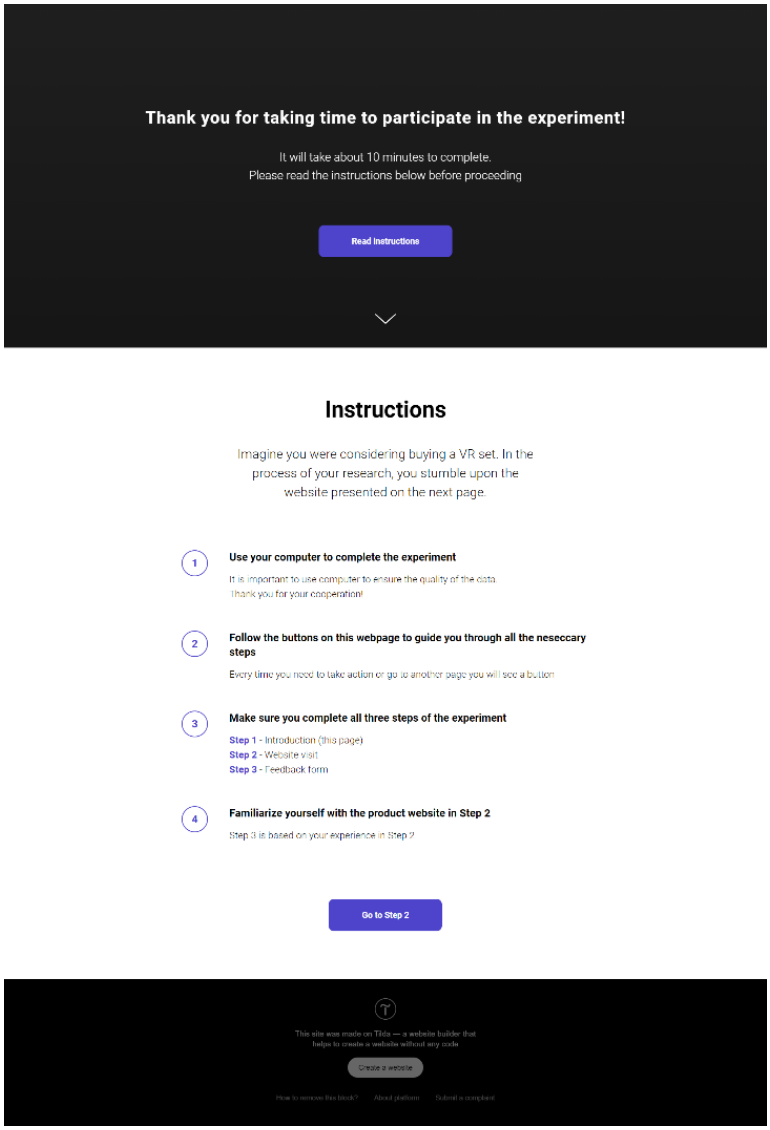


Figure 4. Step 1: Introduction page

The instruction introduced the participant into the context: 'Imagine you were considering buying a VR set. In the process of your research, you stumble upon the website presented on the next page' (see the big-scale picture in Appendix 1) . Below it listed the set of experiment guidelines to follow.

Table 7. Experiment guidelines

Guideline N	Description
1	*Use your computer to complete the experiment* It is important to use computer to ensure the quality of the data. Thank you for your cooperation!
2	*Follow the buttons on this webpage to guide you through all the necessary steps* Every time you need to take action or go to another page you will see a button
3	*Make sure you complete all three steps of the experiment* • Step 1 - Introduction (this page) • Step 2 - Website visit • Step 3 - Feedback form
4	*Familiarize yourself with the product website in Step 2* Step 3 is based on your experience in Step 2

Finally, the participant saw the button which offered to proceed to the second step of the experiment.

Step 2: Product landing page

At this step, the participant entered the product landing page (see the big-scale picture in Appendices 2&3), where the product category and presence of animation would depend on the experiment link he or she received, the participants got assigned to the webpages.

Each website contained a landing page of the pre-selected product, with the layout and design close to real-life product landing page containing the call-to-action buttons, appealing product description and main product characteristics. The landing page emulated the real

promotional landing page experience inspired by the promotional websites created at Apple[3] and Google[4], the companies that have long been beating the competition and maintained their positions as the market leaders.

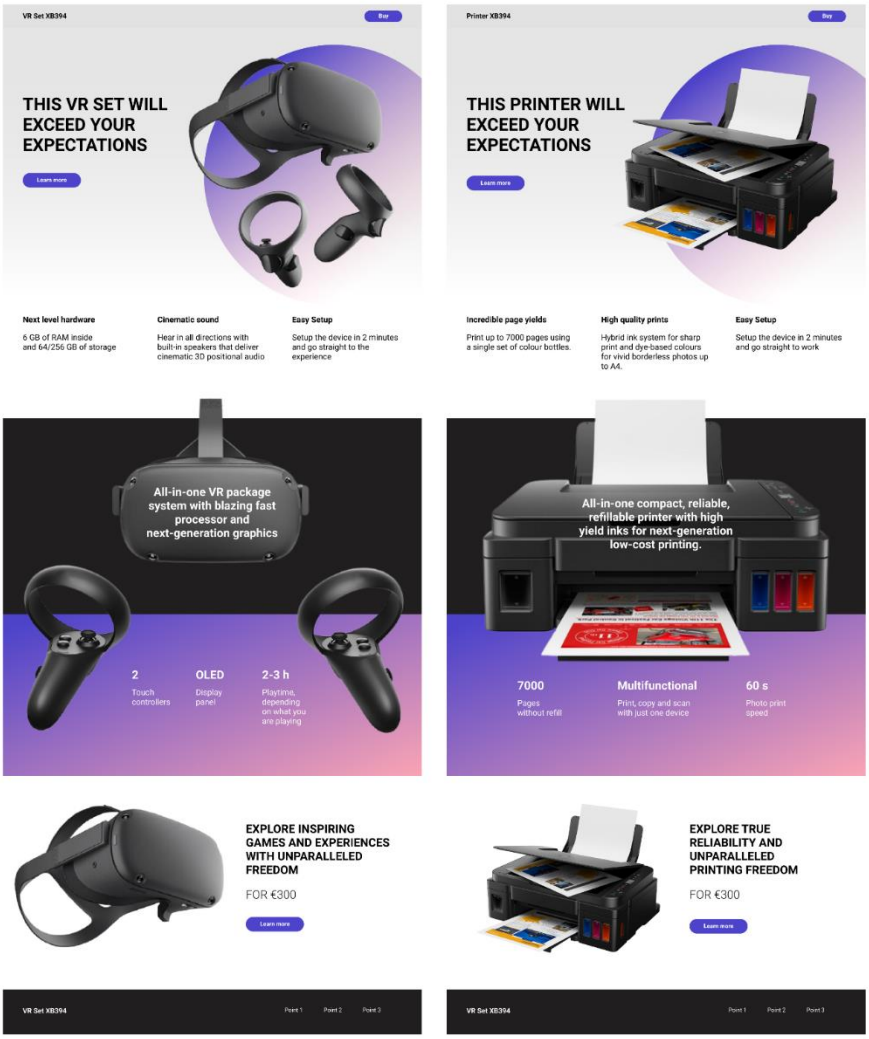


Figure 5. Promotional landing pages created for the experiment

After scrolling the webpage, the participant could stay there a bit longer to study the website. In the end of the page, he or she would find the button which offered to proceed to the third step of the experiment.

[3] https://www.apple.com/ru/iphone-12/

[4] https://wearos.google.com/#hands-free-help

Step 3: Feedback form

This step concluded the experiment and led the user to the survey created on a free online platform Google Forms. This way the participant could report the landing page experience he or she just had by answering the set of questions that would help measure the word-of-mouth intentions, flow experience and user engagement, as well as willingness to buy the product presented in the landing page. The survey also included manipulation check questions and control variable questions. The feedback form questions were developed based on the established scales supported by previous research.

3.3.2. Data collection

The data used was collected during April and May 2021. In total, 182 participants, participated in this study, out of which 47 people completed the experiment for the static version of the VR category landing page, 45 people completed it for the animated version of the VR category landing page, 45 people – for the static version of Printer category landing page, and 45 people – for the animated version of the Printer category website. The participants were found using the CEMS and GSOM student network as well as the personal networks of the author. Snowballing process was used to reach the maximum available number of participants. The participants were approached by private messages in various social networks, moreover social media channels such as Instagram, Facebook and LinkedIn were used to spread the word about the experiment.

3.3.3. Experiment design

First, the experiment is aimed to find out whether there is a significant influence of introducing the story-telling animation into a promotional product landing page on one of the following things: user engagement (H1), flow experience (H2), positive word-of-mouth intentions (H3) or willingness to buy the product presented on the website (H4). These hypotheses will be checked both in hedonic and utilitarian consumption contexts to understand if animation in the landing page has the influence compared to the static version, and if yes, does it make difference in any landing page or only in ones belonging to particular consumption context.

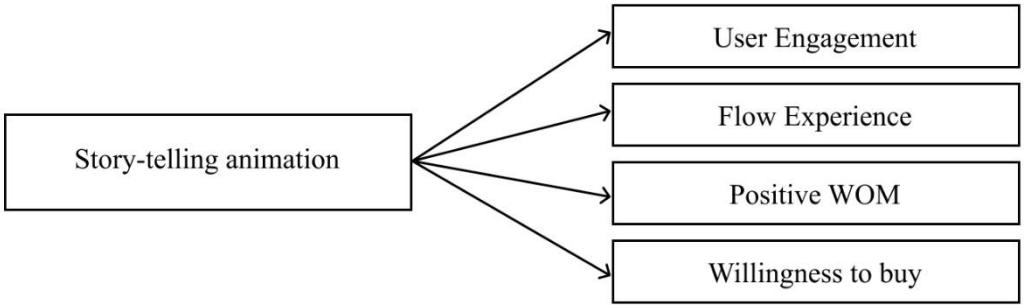


Figure 6. Conceptual model for hypotheses H1, H2, H3, H4

Second aim of the experiment consists of comparing whether there is significant difference in how story-telling animation influences the consumer perception in hedonic consumption context compared to the utilitarian one. This includes checking whether word-of-mouth intentions (H5) and willingness to buy a product (H6) will significantly change if the animation is introduced in the landing page dedicated to the hedonic product compared to the utilitarian product landing page.

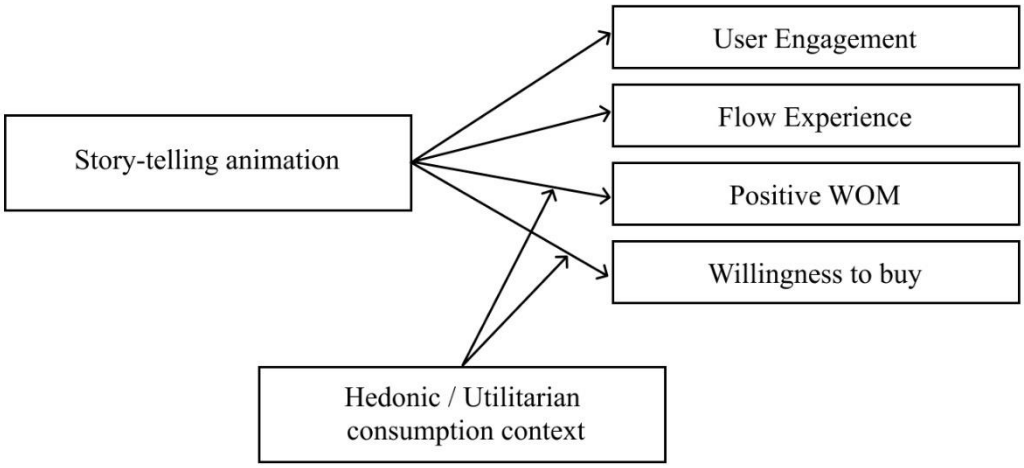


Figure 7. Conceptual model for hypotheses H5, H6

If we tie down the conceptual models described before with the experiment setup presented in the Figure 2, we can extend the experiment setup model with the main dependent variables of the experiment.

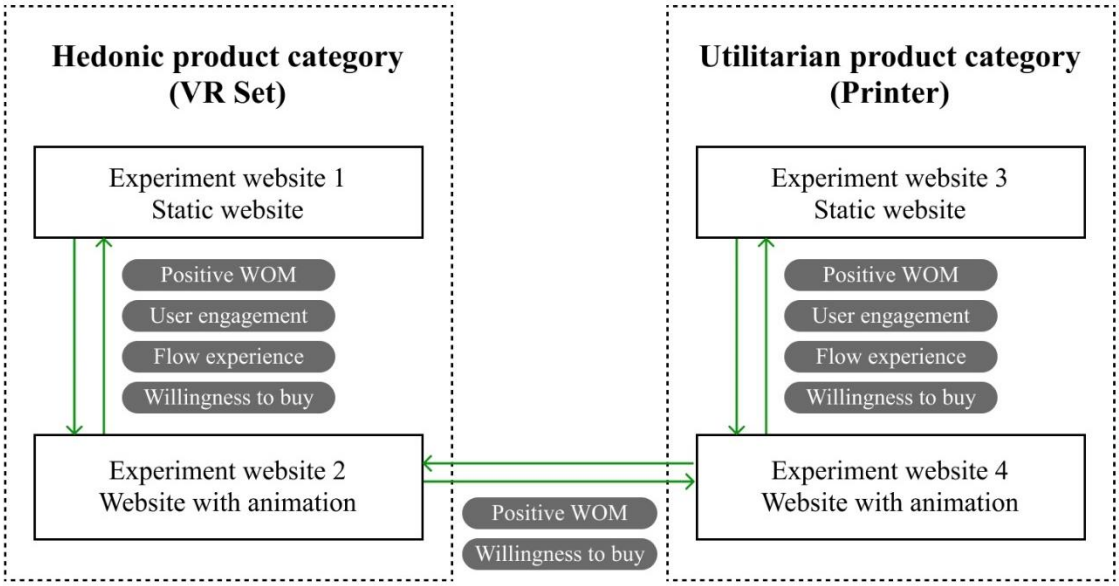


Figure 8. Extended experiment setup

Dependent variables

- *Positive word-of-mouth*

  Positive word-of-mouth was measured using the scale developed by Goyette et al. (2010) which covers the Word-of-Mouth Measurement Scale for e-Services Context. Since the experiment targets only the positive word-of-mouth intentions items for negative word-of-mouth were filtered out. The scale consisted of 2 items that were measured on a 7-point scale (1=strongly disagree, 7=strongly agree; e.g., 'I would recommend other people to check out the website of the product' and 'I would share the website with other people').

- *Flow experience*

  Flow experience was measured using the scale developed by Rheinberg et al. (2002). The scale consisted of 10 items that were measured on a 7-point scale (1=strongly disagree, 7=strongly agree, e.g., 'My thoughts/activities run fluidly and smoothly', 'I did not notice time passing', 'I had no difficulty concentrating', etc.).

- *User engagement*

  User engagement was measured using the scale developed by O'Brien et al. (2018). The scale consisted of 12 items that were measured on a 7-point scale (1=strongly disagree, 7=strongly agree, e.g., 'I lost myself in browsing experience', 'This website was attractive', 'I felt interested in this experience', etc.).

- *Willingness to buy*

The variable was measured with one question introduced by O'Brien et al. (2018). It sounded 'Assuming I had the money, I would probably buy the product presented in the website' (1=strongly disagree, 7=strongly agree).

Manipulation check variables

To control for variables that might influence the effects of word-of-mouth intentions, user engagement, flow experience and willingness to buy, individual background variables were measured.

- *Information load* was checked with two items: 'The website I visited had (1=not enough information, 7=too much information)' and 'I require more information before I can evaluate Brand A's performance (1=strongly disagree, 7=strongly agree – reverse coded)'.
- *Scenario comprehension* was assessed with one item: 'I think that the website was (1=difficult to understand, 7=easy to understand)'.
- *Effort* was measured with one item: 'I think browsing the website was (1=difficult to complete, 7=easy to complete)'.
- Influence of *product characteristics* was measures with one item: 'The characteristics of the product were (1=below average,7=above average)'.
- Perception of *product quality* was checked with one item: 'Compared to an average VR, how do you perceive the quality of the presented product?' (1=very bad quality, 7=very good quality)

In animated websites animation check was introduced. Animation perception was assessed with two items: 'I noticed the presence of the animation on the website' and 'Animation on the website was telling a story' (1=strongly disagree, 7=strongly agree).

Control variable questions

Control variable questions included the same set of items measuring Consumer Involvement, Product Knowledge, Buying Experience as in the Pretest. Additionally, the participants were asked how long they thought they had spent on the product landing page. Finally, the survey had the set of general questions about participants' income, age, education, country and mother tongue.

You can find the full questionnaire with all items used to measure dependent variables as well as manipulation check and control variables in the Appendix 4.

4. RESULTS

4.1. Socio-demographic description of the group

4.1.1. Sex and age

The proportion of women in the group was relatively higher than that of men, 44% of men versus 56% of women. The age of respondents ranged between 19 and 56 years. Total medium age of the participants was 25 y.o. (SD = 3,81). There are no significant differences between the groups.

Table 8. Sex and age of the experiment participants

Experiment website	**Gender distribution**	**Mean age (SD)**	**N of participants**
VR Set, static	42% - male, 58% - female	26,255 (6,106)	47
VR Set, animated	37% - male, 63% - female	24,867 (3,065)	45
Printer, static	53% - male, 47% - female	24,422 (1,840)	45
Printer, animated	44% - male, 56% - female	24,622 (2,405)	45
Total	**44% - male, 56% - female**	**25,055 (3,810)**	**182**

4.1.2. Education

Out of 182 participants of the experiment, the majority of people have already completed of are currently doing their master's degree (58,2% of participants), the second biggest group consists of people who have completed or are currently enrolled in their Bachelor Degree (36,3%). Participants with PhD degree account for 3,3% of the total group and those who completed only high school – 2,2%.

Table 9. Education level of the experiment participants

Experiment website	**High school**	**Bachelor Degree**	**Master Degree**	**PhD**	**N of participants**
VR Set, static	1 (2,1%)	12 (25,5%)	31 (66,0%)	3 (6,4%)	47

VR Set, animated	0 (0%)	20 (44,4%)	24 (53,3%)	1 (2,2%)	45
Printer, static	0 (0%)	20 (44,4%)	24 (53,3%)	1 (2,2%)	45
Printer, animated	3 (6,7%)	14 (31,1%)	27 (60%)	1 (2,2%)	45
Total	**4**	**66 (36,3%)**	**106 (58,2%)**	**6**	**182**

4.1.3. Geography

The experiment was conducted in a truly international environment due to online format and the access to the networks of the author. More than 90 of the experiment participants indicated that they are from Russian Federation, 21 participants – from Germany, 7 – from France, 5 – from Italy, 5 participants – from Brazil, 4 – from India, 4 – from Switzerland, 3 – from Finland, 3 – from Sweden, 2 – from Mexico, 2 – from the Netherlands, 2 – from Poland, 2 – From Portugal. Other countries included in the scope of the experiment included: Azerbaijan, Belgium, Chile, China, Czech Republic, Ecuador, Estonia, Hungary, Indonesia, Luxembourg, Norway, Romania, etc.

4.2. Experiment analysis

4.2.1. Scale reliability tests

Before proceeding to the comprehensive analysis of data to verify the hypotheses it is important to combine the items of the questionnaire belonging to various concepts into separate scales and confirm that the preselected scales are reliable. After combining the questionnaire items into reliable scales, it is possible to draw conclusions based on them.

Positive word of mouth intentions

The items of the scale included the following questions to the respondents:

- I would share the website with other people (1-strongly disagree / 7-strongly agree);
- I would recommend other people to check out the website of the product (1-strongly disagree / 7-strongly agree);

Scale Reliability Test was performed to identify the reliability of the scale. The test calculated Cronbach's alpha higher equal to 0,912 which shows that the combined scale is reliable.

Flow experience

The items of the scale included the following questions to the respondents:

- I felt just the right amount of challenge (1-strongly disagree / 7-strongly agree);
- My thoughts/activities run fluidly and smoothly (1-strongly disagree / 7-strongly agree);
- I did not notice time passing (1-strongly disagree / 7-strongly agree);
- I had no difficulty concentrating (1-strongly disagree / 7-strongly agree);
- My mind was completely clear (1-strongly disagree / 7-strongly agree);
- I was totally absorbed in what I was doing (1-strongly disagree / 7-strongly agree);
- The right thoughts/movements occured of their own accord (1-strongly disagree / 7-strongly agree);
- I knew what I have to do each step of the way (1-strongly disagree / 7-strongly agree);
- I felt that I have everything under control (1-strongly disagree / 7-strongly agree);
- I was completely lost in thought (1-strongly disagree / 7-strongly agree);

Scale Reliability Test was performed to identify the reliability of the scale. The test calculated Cronbach's alpha higher equal to 0,847 which shows that the combined scale is reliable.

User engagement

The items of the scale included the following questions to the respondents:

- I lost myself in browsing experience (1-strongly disagree / 7-strongly agree);
- The time I spent browsing the product website just slipped away (1-strongly disagree / 7-strongly agree);
- I was absorbed in the experience (1-strongly disagree / 7-strongly agree);
- I felt frustrated while using browsing the product website (1-strongly disagree / 7-strongly agree);
- I found this website confusing to use (1-strongly disagree / 7-strongly agree);
- Browsing the product website was taxing (difficult) (1-strongly disagree / 7-strongly agree);
- This website was attractive (1-strongly disagree / 7-strongly agree);

- This website was aesthetically appealing (1-strongly disagree / 7-strongly agree);
- This website appealed to my senses (1-strongly disagree / 7-strongly agree);
- Browsing the website was worthwhile (1-strongly disagree / 7-strongly agree);
- My experience was rewarding (1-strongly disagree / 7-strongly agree);
- I felt interested in this experience (1-strongly disagree / 7-strongly agree).

Scale Reliability Test was performed to identify the reliability of the scale. The test calculated Cronbach's alpha higher equal to 0,766 which shows that the combined scale is reliable.

Consumer involvement

The analysis of the experiment data showed that similar to the pretest data the four items within the initial scale may not be measuring the same underlying construct of 'Consumer involvement' and are not unidimensional. The Scale Reliability test shows that the new scale would be unidimensional with Cronbach's Alpha equal to 0,749 if only the following items are included:

- In selecting from the many types and brands of this product available in the market, would you say that (1-I would not care at all as to which one I buy/ 7-I would care a great deal as to which one I buy)
- How important would it be to you to make the right choice of this product? (1-Not at all important/ 7-Extremely important)
- In making your selection of this product, how concerned would you be about the outcome of your choice? (1-Not at all concerned/ 7-Very much concerned)

4.2.2. Animation perception check

Before proceeding to the analysis, it is important to mention that in each questionnaire after visiting the animated website the participants were asked to give feedback on whether they noticed the presence of animation on the website and whether they considered it to be storytelling one. As it is visible from Table 7 the participants tended to notice the presence of animation in both animated websites, mean response to the question 'I noticed the presence of the animation on the website was equal to 5,411 out of 7, which shows that participants were aware of the presence of the animation in the websites. The difference of this mean against the midpoint (4,0) is statistically significant (see Table 8).

Table 10. Animation check, One-Sample Statistics

Item	N	Mean	Std. Deviation	Std. Error Mean
I noticed the presence of the animation on the website	90	5,411	1,9825	,2090
Animation on the website was telling a story	90	4,178	1,8758	,1977

However, the participants were not considering the animation used on the website to be the story-telling one with mean response to the question 'Animation on the website was telling a story' equal to 4,178 (see Table 7) with no statistically significant difference from the midpoint (see Table 8).

Table 11. Animation check, One-Sample Test

Item	N	t	df	Sig (2-tailed)
I noticed the presence of the animation on the website	90	6,753	89	0,000
Animation on the website was telling a story	90	0,899	89	0,371

The Independent t-test between the consumption contexts has shown that there is no significant statistical difference between the means of perception of animation in the websites of hedonic and utilitarian consumption contexts.

Table 12. Independent t-test, Animation check across consumption contexts

Item	t	df	Sig (2-tailed)
I noticed the presence of the animation on the website	-1,226	88	0,223
Animation on the website was telling a story	-1,355	88	0,179

Since the storytelling animation item resulted to be insignificant, in order to be able to study the influence of storytelling animation on the website it is necessary to separate the participants who considered that the animation on the website was telling a story and study how their affective response is different from those who did not perceive the animation as the storytelling one. To see this difference the sample was divided into two parts: 'People who saw the story' and 'People who did not see the story' in the animation used.

Before dividing the sample into two groups it was necessary to remove the outliers from the sample. As it was mentioned earlier there are two items that check the participant's attitude towards the animation on the website. The analysis of the plots of the first item 'I noticed the presence of the animation on the website' has shown that there were 4 outliers to remove, namely the people who did not notice the presence of animation at all and thus were not able to form part of the final sample that would be then used to analyze the difference of attitudes towards the animated websites (see Figure 8).

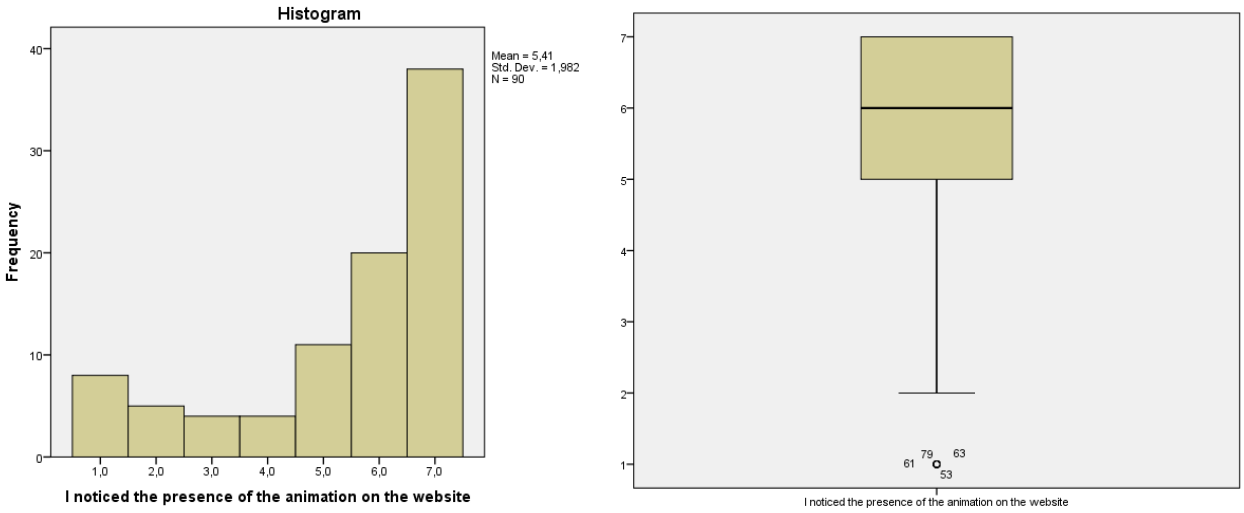


Figure 9. 'I noticed the presence of the animation on the website' item plots

With regards to the second item 'Animation on the website was telling a story', no outliers were identified, therefore no participant was excluded based on this item.

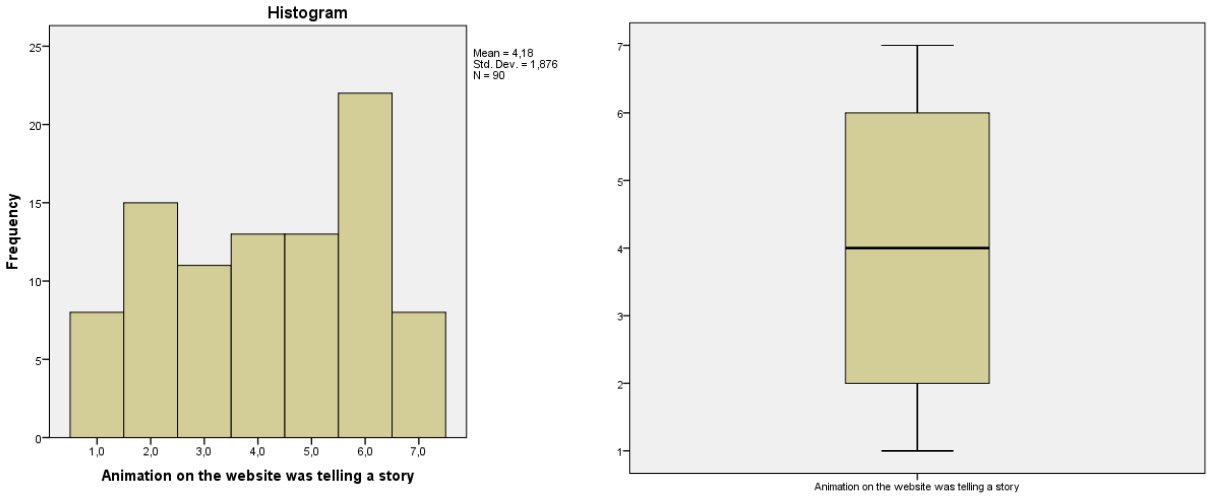


Figure 10. 'Animation on the website was telling a story' item plots

The split sample divided into the two groups of 'People who saw the story' and 'People who did not see the story' in the animation had the following characteristics: 21 people out of 45 saw the story in the animated VR Set product website, and 22 out of 45 – in the animated Printer product website.

Table 13. Descriptive statistics, people grouped based on whether they saw the story in the animation or not

Scale	Product category	People who did not see the story		People who saw the story	
		N	Mean	N	Mean
PositiveWOM	VR Set	20	4,0625	21	5,2262
	Printer	23	3,7065	22	4,6591
Flow	VR Set	20	4,8200	21	5,5810
	Printer	23	4,4435	22	5,3636
UserEngagement	VR Set	20	3,5125	21	4,5437
	Printer	23	3,6087	22	4,2273
WillingnessToBuy	VR Set	20	2,7000	21	5,2381
	Printer	23	3,3913	22	4,9545

In all the further analyses this division would help to see differences between the groups and enable to draw conclusions on the influence of the story-telling animation.

4.2.3. Multi-factor analysis

Once the combined scales are proven to be reliable and the animation notice presence is checked it is possible to proceed to multi-factor ANOVA analysis. It was used to understand the significance of the effect of animation on such factors as positive word-of-mouth, user engagement, flow experience and willingness to buy.

Overall, using the characteristics ‘static/dynamic’, ‘hedonic/utilitarian’ has shown significant interaction in the Flow experience parameter of the user, while other variables resulted insignificant.

Table 14. Multi-factor ANOVA descriptive statistics, Dependent Variable: Flow

Hedonic	Animated	Mean	Std. Deviation	N
0	0	4,922	,9695	45
	1	4,893	1,0874	45
	Total	4,908	1,0244	90
1	0	4,579	,8886	47
	1	5,210	1,0067	41
	Total	4,873	,9918	88
Total	0	4,747	,9399	92
	1	5,044	1,0556	86
	Total	4,890	1,0057	178

Table 15. Multi-factor ANOVA, Tests of Between-Subjects Effects, Dependent Variable: Flow

Dependent Variable: Flow					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8,793[a]	3	2,931	2,996	,032
Intercept	4264,929	1	4264,929	4359,110	,000
Hedonic	,008	1	,008	,008	,927

Animated	4,024	1	4,024	4,113	,044
Hedonic * Animated	4,833	1	4,833	4,940	,028
Error	170,241	174	,978		
Total	4436,170	178			
Corrected Total	179,034	177			

4.2.4. Analyzing the differences between static and animated versions

To dig deeper into the effects of story-telling animation on the result in each of the consumption contexts, an Independent-Samples T-test test was used. It showed clearly the differences between the control and test groups of the experiment and enabled studying the difference between the groups with different attitudes towards the animation.

This analysis has its aim in testing the hypotheses H1-H4 for the utilitarian and hedonic contexts.

H1: *Introduction of a story-telling animation into a website will increase stimulate user engagement compared with static version of the same website. More specifically:*

H2: *Story telling animation used in a brand website will increase the online flow experience of the users. More specifically:*

H3: *Story-telling animation in the brand website will increase the positive word-of-mouth intention around the brand.*

H4: *Story telling animation will increase users´ willingness to buy the product presented on the website.*

First, the analysis included testing whether there is a significant difference in consumers' WOM intentions, perception of flow, user engagement and willingness to buy when they visit the product website in its static version (control group) and animated version (test group). Second, the 'People who saw the story' group was analyzed separately to see how the effects change.

Since we need to consider both hedonic and utilitarian consumption contexts the analysis will proceed in two pairs of websites:

- Pair 1: hedonic, VR Set static (control group) – VR Set animated (test group)
- Pair 2: utilitarian, Printer static (control group) – Printer animated (test group)

Pair 1. Hedonic product category

H1a: Introduction of a story-telling animation into a website promoting a hedonic product will increase stimulate user engagement compared with static version of the same website.

H2a: Story telling animation used in a hedonic product website will increase the online flow experience of the users.

H3a: Story-telling animation in the hedonic product website will increase the positive word-of-mouth intention around the brand.

H4a: Story-telling animation will increase users´ willingness to buy the product presented in the hedonic product website.

H4b: Story-telling animation will increase users´ willingness to buy the product presented in the utilitarian product website.

The animation manipulation between the two groups in the context of VR Set product website was successful in creating variance not only in Flow experience, but also in Positive word-of-mouth intentions of the user, whereas it did not significantly influence the user engagement and willingness of the consumers to buy the product.

Table 16. Descriptive statistics, whole sample, Pair 1

Scale	**Product category**	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Positive WOM	Static	47	4,0213	1,64170	,23947
	Animated	41	4,8171	1,41314	,22069
Flow	Static	47	4,5787	,88856	,12961
	Animated	41	5,2098	1,00668	,15722
User Engagement	Static	47	3,7943	,88480	,12906
	Animated	41	4,0407	1,00228	,15653
Willingness to Buy	Static	47	3,5957	1,78958	,26104
	Animated	41	4,0000	2,14476	,33496

Table 17. Independent samples t-test, whole sample, Pair 1

Scale	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Positive WOM	-2,419	86	,018	-,79580	,32901	-1,44985	-,14174
Flow	-3,124	86	,002	-,63103	,20202	-1,03263	-,22944
User Engagement	-1,225	86	,224	-,24632	,20115	-,64619	,15354
Willingness to buy	-,952	78,245	,344	-,40426	,42466	-1,24964	,44113

Contrary to what we see above if we run the same text but for the animated website version but consider only people who did not perceive the animation to be storytelling the difference between any of the selected dependent variables results insignificant. People do not present more positive word-of-mouth intentions or experience of flow if they do not recognize storytelling in the website animation.

Table 18. Independent samples t-test, people who see storytelling in animation excluded, Pair 1

Scale	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Positive WOM	-,361	65	,719	-,15372	,42551	-1,00353	,69608
Flow	-1,002	65	,320	-,24128	,24087	-,72233	,23978
User Engagement	1,113	65	,270	,28183	,25313	-,22371	,78736
Willingness to buy	1,851	65	,069	,89574	,48388	-,07062	1,86211

Pair 2. Utilitarian product category

H1b: Introduction of a story-telling animation into a website promoting a hedonic product will increase stimulate user engagement compared with static version of the same website.

H2b: Story telling animation used in a utilitarian brand website will increase the online flow experience of the users.

H3b: Story-telling animation in the utilitarian product website will increase the positive word-of-mouth intention around the brand.

H4b: Story-telling animation will increase users´ willingness to buy the product presented in the utilitarian product website.

The animation manipulation between the two groups in the context of Printer product website was not successful in creating variance in any of the selected dependent variables regardless of whether people saw the story in the animation or not. These included positive word-of-mouth intentions, flow experience, user engagement or willingness of the consumers to buy the product.

Table 19. Descriptive statistics, Pair 2

Scale	**Product category**	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Positive WOM	Static	45	3,7889	1,48664	,22162
	Animated	45	4,0667	1,65694	,24700
Flow	Static	45	4,9222	,96951	,14453
	Animated	45	4,8933	1,08741	,16210
User Engagement	Static	45	3,7870	,81873	,12205
	Animated	45	3,9111	,72483	,10805
Willingness to buy	Static	45	4,0222	1,93636	,28866
	Animated	45	4,1556	1,70501	,25417

Table 20. Independent samples t-test. Pair 2

Scale	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Positive WOM	-,837	88	,405	-,27778	,33185	-,93726	,38170
Flow	,133	88	,894	,02889	,21717	-,40270	,46048
User Engagement	-,761	88	,449	-,12407	,16301	-,44801	,19987
WillingnessToBuy	-,347	88	,730	-,13333	,38461	-,89766	,63100

4.2.4. Analyzing the differences between hedonic and utilitarian animated versions

Another point for comparison would be to understand whether animation present on the website presenting the hedonic product will create more positive word-of-mouth intentions or willingness of the consumers to buy the product, as it is stated in the hypotheses H5-H6.

H5: *Story telling animation will cause more significant positive word of mouth intention in the websites which have hedonic context than those which have utilitarian one.*

H6: *Story telling animation will cause more significant willingness to buy the product presented in the website in hedonic context than in utilitarian one.*

This brings us the third pair to compare.

- Pair 3: VR Set animated (hedonic) – Printer animated (utilitarian)

Pair 3. Hedonic versus utilitarian product category

If we compare the animated versions across two different consumption contexts across the whole sample, we can find out that there is no significant difference in the willingness to buy the product presented on the website. However, there is a significant difference between the positive word-of-mouth intentions.

Table 21. Descriptive statistics, Pair 3

Scale	Product category	N	Mean	Std. Deviation	Std. Error Mean
Positive WOM	VR Set	41	4,8171	1,41314	,22069
	Printer	45	4,0667	1,65694	,24700
Willingness to buy	VR Set	41	4,0000	2,14476	,33496
	Printer	45	4,1556	1,70501	,25417

Table 22. Independent samples t-test. Pair 3

Scale	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Positive WOM	2,249	84	,027	,75041	,33370	,08680	1,41401
Willingness to buy	-,370	76,322	,712	-,15556	,42047	-,99294	,68183

To see if this situation holds true for the people with different attitudes towards the animation the division into groups was again used: the differences between the groups ‘People who saw the story’ and ‘People who did not see the story’ in the animation were analyzed.

An independent sample t-test was performed after splitting the sample in two groups. It showed that in the situation when people did not see the story-telling factor in the website animation there was no significant difference between positive word-of-mouth intentions or willingness to buy across the consumption contexts.

Table 23. Descriptive statistics, Pair 3, people with different attitude towards storytelling animation compared

Scale	Product category	People who didn’t see the story			People who saw the story		
		N	Mean	Std. Deviation	N	Mean	Std. Deviation

Positive WOM	vr-d	20	4,1750	1,47144	21	5,4286	1,06402
	pr-d	23	3,5870	1,74286	22	4,5682	1,43341
Willingness to Buy	vr-d	20	2,7000	1,86660	21	5,2381	1,60950
	pr-d	23	3,3913	1,77711	22	4,9545	1,21409

Table 24. Independent samples t-test. Pair 3, people with different attitude towards storytelling animation compared

Scale	**People who didn't see the story**			**People who saw the story**		
	t	df	Sig. (2-tailed)	t	df	Sig. (2-tailed)
Positive WOM	1,185	41	,243	2,226	41	,032
Willingness to Buy	-1,243	41	,221	,654	41	,517

4.3. Verification of the research hypotheses

Summing everything up, the analysis confirmed three hypotheses, while others resulted to be rejected. In the utilitarian consumption context story-telling animation failed to create additional value, while in hedonic context it managed to increase the flow experience and word-of-mouth intentions of the users. Moreover, the influence of story-telling animation on word-of-mouth intentions proved to be significantly higher in hedonic context than in utilitarian one.

Table 25. Verification of the research hypotheses

Hypothesis	**Description**	**Accepted / Rejected**
H1a	Introduction of a story-telling animation into a website promoting a hedonic product will increase stimulate user engagement compared with static version of the same website.	Rejected
H1b	Introduction of a story-telling animation into a website promoting a hedonic product will increase stimulate user	Rejected

	engagement compared with static version of the same website.	
H2a	*Story telling animation used in a hedonic product website will increase the online flow experience of the users*	Accepted
H2b	*Story telling animation used in a utilitarian brand website will increase the online flow experience of the users*	Rejected
H3a	*Story-telling animation in the hedonic product website will increase the positive word-of-mouth intention around the brand.*	Accepted
H3b	*Story-telling animation in the utilitarian product website will increase the positive word-of-mouth intention around the brand.*	Rejected
H4a	*Story-telling animation will increase users´ willingness to buy the product presented in the hedonic product website.*	Rejected
H4b	*Story-telling animation will increase users´ willingness to buy the product presented in the utilitarian product website.*	Rejected
H5	Story telling animation will cause more significant positive word of mouth intention in the websites which have hedonic context than those which have utilitarian one	Accepted
H6	Story telling animation will cause more significant willingness to buy the product presented in the website in hedonic context than in utilitarian one	Rejected

5. DISCUSSION

5.1. Main findings

The study aimed to see how story-telling animation in a brand landing page or website will influence consumer attitude in two different consumption contexts. The distinction between the two consumption contexts, namely hedonic and utilitarian, has proved to hold true for the categories selected for this research, and proved to influence the way people perceive the product presented on the website.

The study demonstrated how the introduction of animation in each of the contexts will change word-of-mouth intentions, flow experience, user engagement and willingness to buy the product. The results show that story-telling animation has different effects in hedonic and utilitarian consumption. In hedonic context it can create various positive stimuli, increasing the user flow experience and positive word-of-mouth intentions which are significantly different from the utilitarian context. These results prove that people will be more willing to spread positive WOM about the website if they see the story-telling animation there. Moreover, the experience of flow will significantly, bringing to the table the benefits of person being completely immersed into the browsing and simply having good time during the visit.

Contrary to the hedonic context, story-telling animation in the utilitarian website did not stimulate any of the above-mentioned factors, with tests showing insignificant differences compared to the static version.

Later, we studied whether the story-telling animation influence is different if the consumer browses for a product towards which he or she has a hedonic attitude versus the one he or she has utilitarian attitude to. The influence proved to be significantly different for the positive word-of-mouth intentions between the two contexts, but not for the user flow, engagement, or willingness to buy the product.

5.2. Theoretical contributions

This research has extended the understanding of animation as a website interactivity factor and how consumers tend to respond to it in different consumption contexts. More specifically, it provided empirical evidence that story-telling animation acts as a trigger to increase user flow of the user and positive word-of-mouth intentions in the hedonic consumption context. Moreover, the study has once again showed that consumption context matters – in this study the users tend to

present significantly more positive word-of-mouth intention when they see the story-telling animation.

One of the main steps forward compared to the existing research in the field is the way how the experiment itself was conducted and developed. The author of the experiment had previous experience in developing the websites and custom animation, which increased the real-life appeal of the study and provided relevant and reliable results.

Moreover, this paper has answered the research questions identified in the beginning of the research. Even though there are several limitations to the research, they can serve as a valuable question for further investigation.

5.3. Managerial implications

From managerial point of view this study has uncovered the power of story-telling animation in the promotional website of hedonic products. Animation is a wide-spread tool used in many existing websites; however, this study shows that basic animation used on the website does not improve the experience of the user sufficiently to trigger positive consumer response. Storytelling in animation has, in its turn, proven to bring the effects that businesses would love to see from their potential and existing customers. If the animation on the hedonic product website helps to tell user a story, uncovers the product features and elements in an exciting manner, it makes the user more willing to spread the word about it. The word-of-mouth created by these users will result in spreading brand awareness and product exposure.

The question a lot of managers might have is how to make the animation tell a story? From the experience of how the websites for this experiment were developed and from the studies on animation you can find in the first part of this research, there are several methods how to transform the animation, and consequently the website, so that it starts telling a story.

1. *Start with analyzing the content of the website.*

   Before animating the website, it is worth taking a careful look at the content of the website. Does it focus on the main questions that the potential customer might have? Are the text blocks too lengthy? Any story-telling animation starts with understanding whether there is a story in the website content that you can deliver even more effectively if you introduce the animation. If there is no story – there is nothing the animation can do.
2. *Check the quality of the graphic materials used on the website*.

Story-telling animation usually implies zooming or scaling the images at certain point, if the size of the product picture is insufficient animating it can play a bad trick and impact negatively instead.

3. *Give the user a sense of rewind back and forth when he or she scrolls up and down.*
   Users have got used to animations fading in whin they scroll down the page and static look back when they scroll back, this type of animation is helpful to uncover the information but does not surprise the users anymore. However, we all remember how we used to rewind the tape of the film on the interesting moment or when we missed something. Giving the user an opportunity to feel the same on the website brings an association of story played back and forth.
4. *Unpack or rotate the product using the custom animation.*
   The final and probably the most powerful tool to make animation storytelling is to make it transform the product and change its look or feel. When user is scrolling the website and the mouse scroll provokes the product to unpack, rotate or show its features, it gives a fuller overview of the product and enhances the user experience. This is particularly powerful for products that have multiple parts.

The first three steps can be easily created with the use of website constructors such as Tilda with its Zero Block custom animation tool. Potentially, Zero Block can enable to bring to life the fourth step, too. However, each product webpage should be analyzed separately. The fourth step usually becomes possible with the use of CSS, when the website is developed by the team with the participation of a front-end developer and a UI/UX designer that comes up with the creative idea how to present the product.

The results of this study will be particularly relevant for medium and small business owners selling hedonic products or services, who host their websites on such website constructors such as Tilda. If the website constructor provides functionality to introduce custom animations this functionality is worth using since it can trigger positive word-of-mouth effects around the website and increase the flow experience of the users.

5.4. Limitations and directions for future research

Now that it has been discovered that story-telling animation increases positive word-of mouth intentions on hedonic product websites, future research can go one step further and discover what are the channels that people will use for positive WOM around it. For, example, if might be interesting to understand if people speak about the website, in which circumstances, if they send

it online – where? This direction has its roots in the limitation of the current research since it only covered the general scale of positive WOM intentions and did not study the channels through which the people will be willing to spread the information.

Another limitation of this research lies in the selected product categories, these could be changed to see if the results change, or some factors become significant. Obviously, the selected product categories present only one of the examples of the products belonging to the hedonic and utilitarian consumption contexts. Therefore, the future research could discover the same patterns but using other product categories.

REFERENCES

Academic Literature in English

1. Adaval, R. (2001). Sometimes it Just Feels Right: The Differential Weighting of Affect-Consistent and Affect-Inconsistent Product Information. Journal of Consumer Research, 28 (April), 1-18.
2. Alba, J.W. & Williams, E.F. (2013). Pleasure Principles: A Review of Research on Hedonic Consumption. Journal of Consumer Psychology, 23 (January), 2-18.
3. Anderson, E. W. (1998). Customer Satisfaction and Word of Mouth. Journal of Service Research, 1(1), 5–17.
4. Arndt, J. (1967). Word of mouth advertising: A review of the literature. Advertising Research Foundation.
5. Buchanan, R., &; Csikszentmihalyi, M. (1991). Flow: The Psychology of Optimal Experience. Design Issues, 8(1), 80.
6. Chou, T. J., & Ting, C. C. (2003). The role of flow experience in cyber-game addiction. Cyberpsychology & Behavior, 6 (6), 663-675.
7. Davis, M. S., & Csikszentmihalyi, M. (1977). Beyond Boredom and Anxiety: The Experience of Play in Work and Games. Contemporary Sociology, 6(2), 197.
8. Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. Journal of Applied Social Psychology, 22(14), 1111–1132.
9. Dhar, R., & Wertenbroch, K. (2000). Consumer choice between hedonic and utilitarian goods. Journal of Marketing Research, 37(1), 60–71.
10. Gao, L., Bai, X., & Park, A (2017). Understanding sustained participation in virtual travel communities from the perspectives of IS success model and flow theory. Journal of Hospitality & Tourism Research 41 (4), 475–509.
11. Hogan, J.E., Lemon, K.N. & Libai, B. (2004). Quantifying the ripple: word-of-mouth and advertising strategies of competing durable good producers. Marketing Science, 7(4), 356-67.
12. Hoffman, D.L., Novak, T.P. (1996). Marketing in hypermedia computer-mediated environments: Conceptual foundations. Journal of Marketing 60 (3), 50–68.
13. Hong, W., Thong, J. Y., & Tam, K. Y. (2004). Does Animation Attract Online Users' Attention? The Effects of Flash on Information Search Performance and Perceptions. Information Systems Research, 15(1), 60-86.

14. Huang, L.-T., Chiu, C.-A., Sung, K., & Farn, C.-K. (2011). A Comparative Study on the Flow Experience in Web-Based and Text-Based Interaction Environments. Cyberpsychology, Behavior, and Social Networking, 14(1-2), 3–11.
15. Kashdan, T. B., & Steger, M. F. (2007). Curiosity and pathways to well-being and meaning in life: Traits, states, and everyday behaviors. Motivation and Emotion, 31(3), 159–173.
16. Keller, E. & Libai B. (2009). A Holistic Approach to the Measurement of WOM. Presentation at ESOMAR Worldwide Media Measurement Conference, Stockholm (May 4–6).
17. King, R. A., Racherla, P., & Bush, V. D. (2014). What we know and don't know about online word-of-mouth: A review and synthesis of the literature. Journal of Interactive Marketing, 28(3), 167–183.
18. Kivetz, R., & Zheng, Y. (2017). The effects of promotions on hedonic versus utilitarian purchases. Journal of Consumer Psychology, 27(1), 59-68.
19. Kronrod, A., & Danziger, S. (2013). Wii Will Rock You! The Use and Effect of Figurative Language in Consumer Reviews of Hedonic and Utilitarian Consumption. Journal of Consumer Research, 40(4), 726-739.
20. Lim, W. M. (2017). Untangling the relationships between consumer characteristics, shopping values, and behavioral intention in online group buying. Journal of Strategic Marketing, 25(7), 547–566.
21. Litman, J. (2005). Curiosity and the pleasures of learning: Wanting and liking new information. Cognition & Emotion, 19 (6), 793-814.
22. Liu, Y., & Shrum, L. J. (2002). What is Interactivity and is it Always Such a Good Thing? Implications of Definition, Person, and Situation for the Influence of Interactivity on Advertising Effectiveness. Journal of Advertising, 31(4), 53-64.
23. McMillan, S. J., Hwang, J., & Lee, G. (2003). Effects Of Structural And Perceptual Factors On Attitudes Toward The Website. Journal of Advertising Research, 43(4), 400-409.
24. Noort, G. V., Voorveld, H. A., & 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.
25. Reichheld, F. and Sasser, W.J. (1990). Zero defections: quality comes to services. Harvard Business Review, September/October, 105-111.
26. Schlienger, C., Conversy, S., Chatty, S., Anquetil, M., & Mertz, C. (2007). Improving users' comprehension of changes with animation and sound: An empirical assessment. IFIP Conference on Human-Computer Interaction, pp. 207-220, Springer, Berlin, Heidelberg.

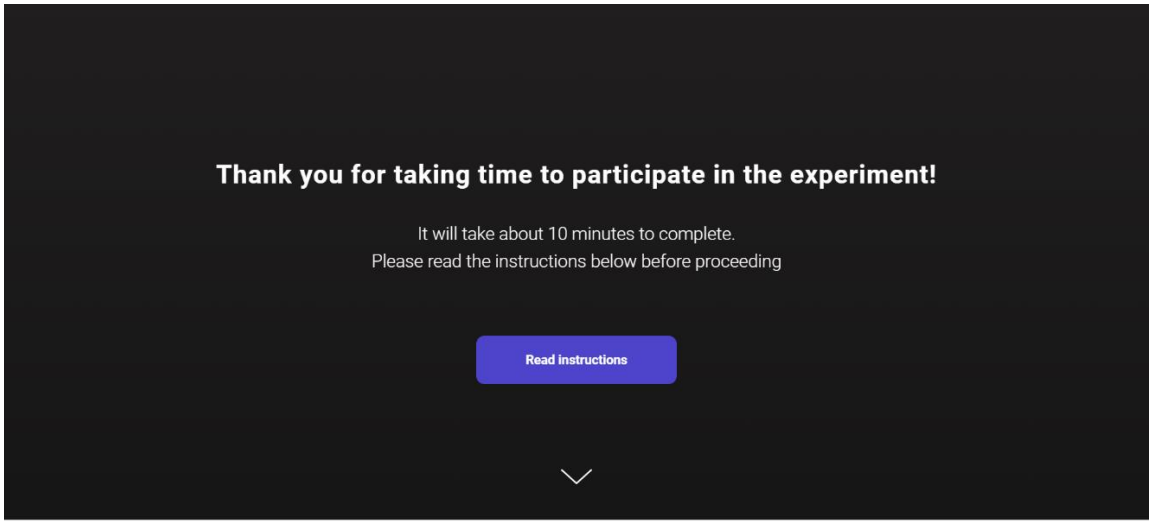
27. Sicilia, M., Ruiz, S., & Munuera, J. L. (2005). Effects of Interactivity in a Web Site: The Moderating Effect of Need for Cognition. Journal of Advertising, 34(3), 31-44.
28. Snowden, R. J., & Freeman, T. C. (2004). The visual perception of motion. Current Biology, 14(19), 28-31.
29. Song, Ji H. and George M. Zinkhan (2008). Determinants of Perceived Web Site Interactivity. Journal of Marketing, 72, 2, 99-113.
30. Trusov, M., Bucklin, R.E. and Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: findings from an internet social networking site. Journal of Marketing, Vol. 73 (5), 90-102.
31. Wu, G. (2006). Conceptualizing and Measuring the Perceived Interactivity of Websites. Journal of Current Issues & Research in Advertising, 28(1), 87-104.
32. Yang, F., & Shen, F. (2019). Involvement without Knowledge Gain: A Meta-Analysis of the Cognitive Effects of Website Interactivity. Journal of Broadcasting & Electronic Media, 63(2), 211-230.
33. Yimiao Chen, Fangyi Liu, Cheng-Hsi Fang, Tom M.Y. Lin. (2013). Understanding the effectiveness of word-of-mouth: an elasticity perspective. Journal of Research in Interactive Marketing, 7(1), 57-76.

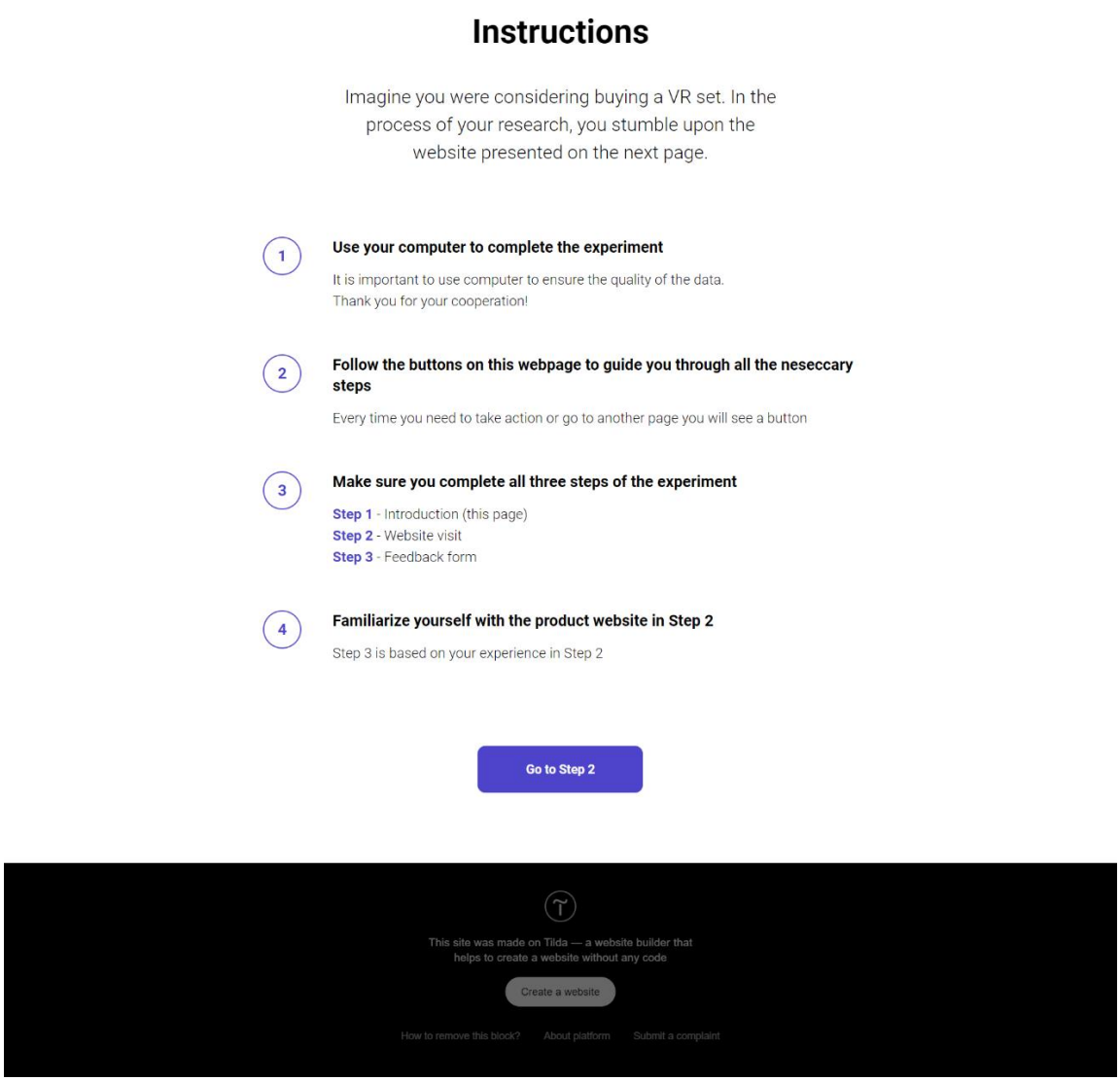
Professional Literature and Market Analytics

34. Moss, B. (2018, February 07). The Ultimate Guide to Web Animation. Retrieved June 05, 2020, from https://www.webdesignerdepot.com/2015/05/the-ultimate-guide-to-web-animation/
35. Perkins, B., & Fenech, C. (2014). The Deloitte Consumer Review. The growing power of consumers. Retrieved June 21, 2020, from https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/consumer-business/consumer-review-8-the-growing-power-of-consumers.pdf

APPENDICES

Appendix 1. Experiment website, step 1





Appendix 2. Experiment website, step 2, hedonic product category

Appendix 3. Experiment website, step 2, utilitarian product category

Appendix 4. Experiment survey

Construct	Scale items (7-point)	
DEPENDENT VARIABLES		
(H3) Positive word of mouth (Goyette et.al., 2010)	• I would share the website with other people • I would recommend other people to check out the website of the product	(1-strongly disagree / 7-strongly agree)
(H2) Flow experience (Rheinberg et.al., 2002)	• I felt just the right amount of challenge • My thoughts/activities run fluidly and smoothly • I did not notice time passing • I had no difficulty concentrating • My mind was completely clear • I was totally absorbed in what I was doing • The right thoughts/movements occured of their own • accord • I knew what I have to do each step of the way • I felt that I have everything under control • I was completely lost in thought	(1-strongly disagree / 7-strongly agree)
(H1) User engagement (O'Brien et.al, 2018)	• FA-S.1I lost myself in browsing experience. • FA-S.2The time I spent browsing the product website just slipped away. • FA-S.3I was absorbed in the experience. • PU-S.1I felt frustrated while using browsing the product website. • PU-S.2I found this website confusing to use. • PU-S.3Browsing the product website was taxing (difficult). • AE-S.1This website was attractive. • AE-S.2This website was aesthetically appealing. • AE-S.3This website appealed to my senses. • RW-S.1 Browsing the website was worthwhile. • RW-S.2 My experience was rewarding. • RW-S.3 I felt interested in this experience.	(1-strongly disagree / 7-strongly agree)
(H4) Willingness to buy	• Assuming I had the money, I would probably buy Produxt X	(1-strongly disagree / 7-

(Goyette et.al., 2010)		strongly agree)
MANIPULATION CHECK		
Animation check	• I noticed the presence of the animation on the website. • Animation on the website was telling a story.	(1-strongly disagree / 7-strongly agree)
Information load questions (Burton et.al.,1994; Aljukhadar et.al. 2010; Study 1 and Study 2)	• The website I visited had (not enough information / too much information) • I require more information before I can evaluate Brand A's performance (strongly disagree / strongly agree – reverse coded)	
Scenario comprehension	• I think that the website was	(difficult to understand / easy to understand)
Effort	• I think browsing the website was	(difficult to complete / easy to complete)
Characteristics	• The characteristics of the product were	(below average/above average)
Product quality	• Compared to an average VR, how do you perceive the quality of the presented product?	(very bad quality, very good quality)
CONTROL VARIABLES QUESTIONS		
Consumer involvement	• In selecting from the many types and brands of this product available in the market, would you say that (I would not care at all as to which one I buy/ I would care a great deal as to which one I buy)	

	• Do you think that the various types and brands of this product available in the market are all very alike or are all very different? (They are alike/ They are all very different) • How important would it be to you to make the right choice of this product? (Not at all important/ Extremely important) • In making your selection of this product, how concerned would you be about the outcome of your choice? (Not at all concerned/ Very much concerned)	
Product Knowledge	• How much do you know about the Product X category in general?	(not much/very much)
Buying Experience	• How much experience do you have in buying Product X?	(not much/very much)
General questions	• How much time do you think you spent on the website? • Age • Income • Education (graduate/undergraduate) • Country • Mother tongue	