St. Petersburg University Graduate School of Management

Master in International Business

THE STUDY OF DIGITAL MARKETING SOLUTIONS EFFECT ON CUSTOMER-BASED BRAND EQUITY IN COSMETIC INDUSTRY IN RUSSIA

Prepared by the 2nd year student Concentration — Master in International Business Maria Zikeeva

> Research advisor: Senior Lecturer, Olga N. Alkanova

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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

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_____(Date)

АННОТАЦИЯ

Автор	Зикеева Мария Александровна	
Название магистерской диссертации	«Исследование влияния решений в области цифрового маркетинга на потребительский капитал бренда на рынке косметики в России»	
Факультет	Высшая Школа Менеджмента	
Направление подготовки	«Менеджмент» (Профиль: Международный Бизнес)	
Год	2017	
Научный руководитель	Алканова Ольга Николаевна, к.э.н., старший преподаватель	
Описание цели, задач и основных результатов	Цель данной исследовательской работы состоит в том, чтобы определить влияние цифровых маркетинговых решений на потребительский капитал бренда в определённой индустрии на Российском рынке. Для достижения цели автор создал комбинированную теоретическую модель на основе предыдущих исследований. Модель была протестирована с помощью многофакторного регрессионного анализа. Эмпирическое исследование было проведено на основе выборки из 187 ответов потребителей. Анализ показал, что определенные переменные потребительского капитала находятся под положительным влиянием цифровых маркетинговых решений. Однако, одна переменная потребительского капитала была подвержена негативному влиянию.	
Ключевые слова	Капитал бренда, потребительский капитал бренда, осведомлённость о бренде, воспринимаемое качество бренда, лояльность к бренду, цифровые маркетинговые решения, производительность веб-сайта, маркетинг в социальных сетях, электронный маркетинг	

ABSTRACT

Master's Student Name	Maria Zikeeva
Master Thesis Title	«The study of digital marketing solutions effect on customer-based brand equity in cosmetic industry in Russia»
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Main field of study	"Management" (specialization: International Business)
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Academic Advisor's Name	Olga N. Alkanova, Candidate of Science (Economics),
	Senior Lecturer
Description of the goal, task and	The research paper aims to fill the gap in defining the
main results	effect of digital marketing solutions on dimensions of
	customer-based brand equity in the specific industry in
	Russian market. To achieve the goal, author created the
	research model on the base of previous studies. The
	model was tested with multiple linear regression analysis
	on the sample of 187 consumers' responses. The analysis
	revealed that certain dimensions of CBBE are positively
	influenced by digital marketing solutions, whereas one
	dimension is affected negatively by them.
Keywords	Brand equity, customer-based brand equity, brand
	awareness, perceived quality, brand loyalty, digital
	marketing solutions, website performance, social media
	marketing, email marketing

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INTRODUCTION

Brands provide the most critical valuation of products and services and allow gaining a competitive advantage. Successful brands are constantly looking for innovative ways to interact with consumers and grow their presence in consumers' mind. Similarly, successful brands possess their unique brand equity. Recently, brand equity became one of the central variables in managing the brands in the fast changing environment. Researchers have found that brand equity positively affects future profits of a company, a sustainable competitive advantage of a branded product or service, a consumer's willingness to pay premium. At the same time, it also raises awareness, drives new contacts for a customer base and increases retention rate. Almost every marketing activity aims to create, manage, and exploit brand equity. Therefore, brand equity represents how effective the positioning and marketing strategy of a brand is. This leads to conclusion that the influence of marketing solutions on brand reflects on both companies' performance and customers' perception. Marketing managers are continually trying to justify the impact of marketing activities on brands perception by consumers and this has restored interest in measures of marketing performance (O'Sullivan and Abela 2007). Therefore the concept of customer-based brand equity has evolved, which was first presented by Kevin Keller. Customer-based brand equity examines perceptions of brands from the perspective of consumers and highlights the importance of marketing activities that can affect customers' attitude. However, despite this considerable amount of interest and research that have been made in the field of brand equity, there is still no common theory on how it should be measured. Therefore, the building of strong customer-based brand equity has been a central issue in marketing research.

Over past several decades, the media environment has changed dramatically. Nowadays, traditional marketing strategies such as magazines and billboards are becoming obsolete. Instead, new trends and innovations are constantly emerging and reshaping that the traditional approach of marketing (Bax, Meyer and Wilkins 2015). With the evolution of internet, digital marketing has become the central issue and is considered as an integrated element of any marketing efforts. There are over 87.5 million active internet users in Russian Federation, and digital environment is reshaping communication with customers in a way that every brand can connect to its customer base, can speak to them and listen to them. The companies operating in Russian market are in constant attempts to find right digital marketing solutions to their marketing strategies that benefit them in terms of growing brand awareness and loyalty. Digital marketing solutions are effective and affordable source of remarkable potential growth and worldwide reach of audience, and they focus on enhancing brand equity and establishing personal, corporate, and product brand

positioning. Yet, building a strong brand equity in a fast-paced digital environment represents a great challenge for marketing managers (Chaffey, et al. 2013). Besides, it has been an ongoing debate over the value that digital solutions give to the brands.

Therefore, since the influence of digital marketing solutions on brand equity has not been investigated well enough, the primary goal of this paper is to test what effect specific digital marketing solutions have on certain dimensions of customer-based brand equity.

To accomplish the goal, the following research objectives were set:

- To study theoretical background on customer-based brand equity and digital marketing solutions;
- To propose a research framework based on theoretical analysis;
- To describe an industry chosen for analysis and gather consumers' data;
- To conduct an empirical analysis on gathered sample;
- To interpret the results and provide theoretical and managerial implications.

For the purpose of research, a specific industry was chosen – cosmetics industry in Russian Federation. The object of the research paper were concrete digital marketing solutions that some cosmetic brands pursue in their strategies in order to attract new customers and stay in touch with loyal ones. The subject of the paper was the effect, which certain digital solutions have on brand equity dimensions. The paper takes into consideration the previously done research on the subject of brand equity, digital marketing and related concepts, as well as reveals the nature of relationship between digital marketing solutions and brand equity dimensions.

In order to address the issues of the topic, the theoretical framework was created based on previous studies. The framework is a combination of previous studies that were dedicated both to brand equity dimensions and digital marketing solutions. The framework indicates the relationship between specific digital marketing solutions that are performed by cosmetic brands from luxury segment and brand equity dimensions such as brand awareness, perceived quality and brand loyalty.

The study provides customer-centric approach, which is supported by collection of consumers' data via survey technique. The consumers were answering questions concerning overall brand equity dimensions and concrete digital marketing solutions. Afterwards, to test the relationship between them, a linear regression was conducted in IBM SPSS Statistics, which proved the framework statistically.

The regression analysis revealed that concrete digital solutions positively affect certain dimensions of customer-based brand equity, whereas some digital solutions negatively influenced one dimension of customer-based brand equity.

The study is organized in 3 chapters, each chapter contributes to the development of theoretical model and the results of the regression analysis. First chapter includes theoretical background on brand equity and digital marketing solutions, development of research model and hypotheses. Second chapter describes industry that were chosen for the study as well as justifies the choice of particular cosmetic brands. Third chapter is devoted to the methodology, data analysis, theoretical and managerial implications, limitations and further research.

CHAPTER 1. THEORETICAL ANALYSIS OF INTERDEPENDENCE BETWEEN BRAND EQUITY CONCEPT AND DIGITAL MARKETING SOLUTIONS

Brand equity concept represents an approach towards benefits of having a well-established brand. Nowadays, companies are pursuing an aim of building a strong brand that brings awareness and many loyal customers. The benefits of having strong brand can be described as brand equity. It can be divided into several dimensions that estimate different degree of adherence towards a brand and judgments about it. Marketing solutions represent the efforts of companies to manipulate those judgments and guide them towards desired effect – increased brand equity. However, with the growing importance of digital environment in daily life, digital marketing solutions has become the main challenge for companies that want their brands to be successful.

The majority of digital marketing solutions, such as website performance, social media communication are currently being adapted and actively implemented by a variety of industries in the attempt to deliver to the customers a superior value. However, digital presence is not a guarantee of successful brand. In fact, many digital solutions affect brands negatively because they are poorly managed (Chaffey, et al. 2013). Therefore, the main target of every brand is to identify the most appropriate digital solutions for the communication with customers.

The aim of this chapter is the representation of a theoretical background and existing frameworks that provide an input to the research area connected to brand equity, approaches towards it and its' dimensions. Similarly, chapter contributes to the research on digital marketing solutions, their classification and metrics. As summary, it presents hypotheses and a combined theoretical framework that is tested in empirical part.

1.1. Brand equity concept

Brand equity is one of the main intangible assets of a company, thus, it is crucial to understand its variables and to invest in creation of it. It is a popular topic that emerged in the late 1980s. The idea of brand equity has a significant amount of research initiated by academics, and simultaneously it still possess a huge potential for studying and exploring.

Since its evolution, brand equity has been investigated deeply from different perspectives. However, there is still no common opinion on what it is and how it should be measured. Researchers suggested a variety of definitions of brand equity. The majority of them explain a phenomena from consumer perceptions and state that the power of brands lies in the minds of consumers (Leone, 2006). Similarly, some financially based definitions evolved that recognize brand equity as a monetary value of a brand (Simon and Sullivan, 1993). Some scientists suggest that financial value of a brand is simply just an outcome of consumers' responsiveness towards brands. (Christodoulides and de Chernatony, 2010)

A dozen of definitions of brand equity was proposed. Farquhar, for example, gave the very first definition where brand equity is considered as "the added value to the firm, the trade, or the consumer with which a given brand endows a product" (Farquhar, 1989). Author considers this definition as too generalized.

Another definition was given by Srivastava and Shocker in 1991 where brand equity means aggregation of all accumulated attitudes and behavior patterns in the extended minds of consumers, distribution channels and influence agents, which will enhance future profits. (Srivastava 1991) The definition reveals a prevailing role of consumers in development of strong brands.

Marketer Susan Gunelius defines brand equity as tangible and intangible value that a brand provides positively or negatively to an organization, its products, its services, and its bottom-line derived from consumer knowledge, perceptions, and experiences with the brand. (Gunelius 2014) The definition reveals three main constituents of brand equity: tangible and intangible value such as revenues and awareness, consumer perception as bottom line of brand equity, positive or negative effect of brand equity on companies and consumers. Insights association defines brand equity as a construct that is designed to reflect the real value that a brand name holds for the products and services that it accompanies. (Insights Association 2016)

Similarly, American Marketing Association highlights that from a consumer perspective, brand value is based on customer attitude to positive brand attributes and favorable consequences of brand usage (American Marketing Association, 2014), which again confirms the importance of consumers in co-creation of brand equity. A brand is considered to have positive or negative customer-based brand equity when consumers react more or less favorably to it.

Therefore, brand equity concept symbolizes the added value that brand brings to the organizations and to its' customers. The research paper focuses on customer-based approach towards brand equity leaving company-based measures for further research. Onwards, paper proceeds with description of a variety of brand equity models that were proposed by different researchers as well as the advantages and drawbacks of each model.

1.1.1. Feldwick's approach towards brand equity

A comprehensive definition of brand equity was suggested by Paul Feldwick. The researcher argues that brand equity concept hinders understanding of brand efficiency. Therefore,

he determines brand equity through three main components: a set of perceptions and consumer associations caused by a brand (description of a brand); degree of consumer loyalty towards the brand (strength of a brand); the total value of the brand as an independent asset that can be included into the balance sheet - value of a brand (Feldwick 2002).

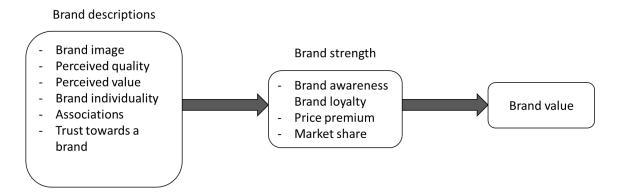


Figure 1. Brand value: cause-and-effect chain. Source: Feldwick (2002)

Feldwick suggests that three concepts are deeply connected and influence one each other. For example, brand descriptions can influence brand strength or at least explain it. Similarly, brand strength can serve as a basis to determine an approximate brand value. In Feldwick's opinion, a positive brand value that is represented by positive shift of main brand efficiency indicators can be achieved through a constant interaction and good relationship of a brand with its consumers.

However, there are drawbacks of the model that connected to blurred definition of each sub-category inside of three dimensions, their measurement and relationship with other sub-categories. Besides, the complexity of the model requires a huge amount of resources, data and research that is why it is not applicable for the research paper.

1.1.2. Equity Engine by Research Iternational

In the following year, Research International developed Equity Engine model for the estimation of customer-based brand equity (Palmer, Meek and Parkinson 2007). Essentially, it defines brand equity as a combination of the functional benefits (performance) and the emotional benefits (affinity) delivered by the brand. The constants of functional benefits are attributes that determine a credibility of a product or service under a brand name. Affinity is represented by the emotional and intangible attributes that customers associate with the brand. Among these attributes are identification, approval and authority. Besides, price is considered as a measure of strong brand equity. The higher price brand can dictate in the market, the stronger its brand equity. Thus, Equity

Engine model combines methodology and considers emotional affinity and functional performance as the main constituents of brand equity.

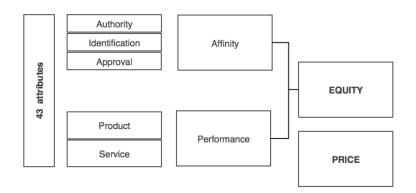


Figure 2. Equity Engine by Research International.

However, from the figure above it can be concluded that model identifies big amount of attributes that can be associated with a brand and product/services, but it is hard to divide them and correlate towards concrete dimensions that can be measured. Therefore, it would be difficult to extract concrete results, and this model cannot be applied to the current research.

1.1.3. Aaker's model

One of the most famous researchers on customer-based brand equity is David Aaker. According to him, brand equity is "a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers". The model highlights five the most essential assets of brand equity:

- Brand loyalty. Simply represents extent to which certain consumers are committed to the brand. High percentage of loyal customers leads to stable revenues, reduction of marketing costs and decreased threat of competitors' brands.
- Brand awareness shows the extent to which consumers are familiar with a brand. High brand awareness results in extended base of potential clients, provides higher sales and market shares.
- 3) Brand associations are some memories and associations in consumers' minds that could be triggered by a brand. They may refer to customer benefits, lifestyles, persons, competitors and countries (Aaker 2009). Associations can be critical factors in differentiating and positioning, creating a reason to buy for potential customers who are looking for specific associated physical or emotional features. Brand associations have following indicators:

the extent to which brand can be remembered from the associations in consumer's mind; the extent to which associations provide brand identification and differentiate it from competitive brands; the extent to which those associations influence buying decision process and the extent to which brand associations create a positive attitude towards the brand.

- 4) Perceived quality represents personal attitude of consumers on how good product or service under a certain brand name. It provides a customer with a reason to buy. Perceived quality may be explained as a summary of brand judgments that represent customers' personal opinion and evaluation with regard to the brand. The main indicators of perceived quality are price and availability in a variety of distribution channels.
- 5) Other proprietary assets are all the other types of branding: trademarks, intellectual property rights, patents that provide competitive advantage. These assets prevent competitors from eroding consumer's loyalty.

Eventually, the sum of these five factors results in brand equity, which leads to top performance of a brand. The following graph represents how brand equity generates value.

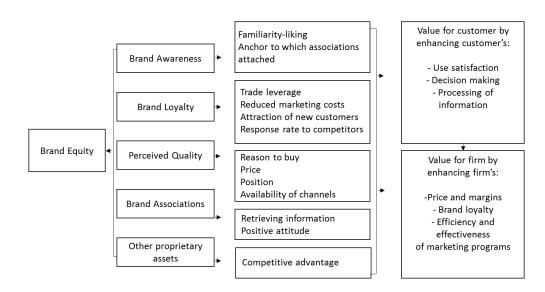


Figure 3. Brand Equity Value Creation. Source: Aaker D.A. (2009)

Additionally, Aaker's model suggests strong interdependence among the dimensions of brand equity. For example, the last four variables can enhance brand loyalty, affecting satisfaction and providing people with reasons to buy. Therefore, Aaker suggest that brand loyalty is both a variable of brand equity and a factor that is affected by brand equity. Similarly, perceived quality might be influenced by awareness (a well-known name is likely to have a good quality), by associations (an opinion leader would only endorse a high quality product) and by loyalty, (a loyal customer would not like a poor quality product).

In summary, Aaker's model explains brand equity from the perspective of consumers, which suits the research paper. Another benefit is connected to brand equity dimensions that are concrete and can be measured by survey techniques. Therefore, some components of model are applicable to the research. However, for the purpose of study, the author treats brand awareness, perceived quality and brand loyalty as separate variables, excluding their interdependence.

1.1.4. Brand equity model by Buil, Martinez and Chernatony

In 2013, researchers from Spain stated that brand equity is a core concept of marketing and questioned assessment of brands in global markets. (Buil, Marinez and Chernatony 2013). They used Aaker's model as the underlying concept for their research, highlighting four main constituents of brand equity: brand awareness, perceived quality, brand associations and brand loyalty. However, Buil, Marinez and Chernatony lined up variables in hierarchical order, explaining that hierarchy can be described as a learning process of a consumer where awareness of a brand results in attitudes (e.g. perceived quality and brand associations) that eventually influence attitudinal brand loyalty. Finally, all four variables make up overall brand equity, where the greatest influence is expected to come from perceived quality, brand associations and brand loyalty.

Additionally, overall brand equity is assumed to contribute to four consumer perceptions towards the brand:

- Consumers' willingness to pay price premiums, which reflects the amount of money a consumer is ready to pay for a brand in comparison with competitors' similar offerings;
- Consumers' general attitude towards brand extensions, which represents a sense of familiarity and trust that can positively influence attitudes of consumers towards new products under a brand name;
- Brand preference and purchase intention, which means that customers who perceive a higher value in a brand are more likely to buy it;

The model explores the effect that brand equity has on consumers' perception and responsiveness towards a particular brand in two European countries. It represents how brand awareness forms in consumer's mind, and later it affects perceived quality and brand associations. Both well-formed perceived quality and brand associations successfully lead to a creation of loyal customer base. All four variables affect overall brand equity, which, in its turn, positively

influences firms' performance through its effect on consumers' responses towards brands. Those responses are represented by less sensitivity to price fluctuations and willingness to pay more for unique value of a brand. Besides, a new product with a well-known brand name entails consumers a sense of familiarity and trust that positively influences their attitude towards the extension, even in the situation when consumers do not have specific knowledge about new product. Finally, the research empirically demonstrates that both brand preference and purchase intention increase with increase of brand equity.

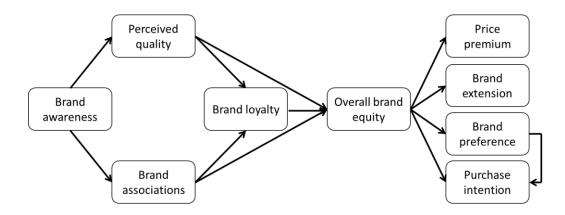


Figure 4. The hierarchical dependence of core elements of brand equity. Source: Buil, Martinez and Chernatony (2013)

The results of research also confirmed that a certain order of creation of brand equity exists. For example, brand awareness has a positive influence on perceived quality and brand associations. Besides, perceived value and brand personality positively influence brand loyalty. However, according to the research, perceived quality negatively affects brand loyalty. In summary, higher brand equity allows brands to expect more positive consumer responses. Among limitations of research are a set of certain brand category, countries, and survey techniques that accept some measurement errors.

In summary, the study highlights the importance of Aaker's theory and allows concluding that dimensions of brand equity such as brand awareness, perceived quality and brand loyalty can be included for this research paper. However, the dimensions in the model are considered dependent on each other, which does not correspond with the goal of this study, and therefore only some insights can be taken for further research.

1.1.5. Kevin Keller and customer-based brand equity

Another significant researcher in the field of brand equity is Kevin Lane Keller. He explored brand equity from the customers' perceptions of brands and as a result, the customerbased brand equity has evolved. According to Keller, customer-based brand equity is the differential effect that consumer's brand knowledge has on their response to the marketing of that brand. Researcher states that brand equity is fundamentally determined by brand knowledge created in consumer's minds by marketing programs and activities (Keller 2008). Brand knowledge in Keller's explanation includes perceptions, feelings and thoughts that a certain brand creates in consumers' mind. Comparing to Aaker's concept, Keller underlines the effect of brand knowledge on consumers by emphasizing, "The power of a brand lies in what customers have learned, felt, seen, and heard about the brand as a result of their experiences over time". Keller's model represents the process of creating a strong brand via six dimensions.

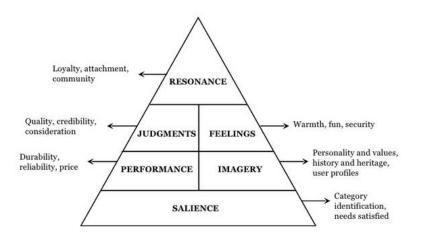


Figure 5. Dimensions of brand knowledge. Source: Keller K (2012).

- Brand salience is related to brand identity and is considered as a main measure of brand awareness. It defines value proposition of a brand and develops unique associations in consumers' mind. Salience is deeply connected to familiarity of consumer with a brand, their ability to recognize easily a brand among others and consumers' active consideration of the purchase of a brand. Brand salience provides a solid base for a competitive advantage.
- 2) Brand performance and brand imagery the accumulation of which results in brand meaning. Transition to this level happens when brand salience is established. The first building block of brand meaning, brand performance, is related to the ways of how a product or a service attempts to meet customers' functional needs (intrinsic features). It indicates important attributes and benefits of a brand such as service efficiency, effectiveness and satisfaction

with a product or service. It also tests functionality of a product or service with reliability, durability, style, design and price. The extrinsic features of a product or service that indicate how customers' needs are met both socially and psychologically are considered as a part of brand imagery, the second building block.

- 3) Brand judgments and brand feelings that correspond to brand responses. The step faces a problem of how customers respond to a brand and its marketing activities, namely, what consumers think and feel about a brand. Brand judgments are rational part of the opinion about a brand, which related to quality and credibility. Whereas brand feelings are customers' emotional responses and reactions with respect to the brand that are linked to self-respect, warmth, security, excitement, pleasure and social approval.
- 4) Brand resonance correlates to brand relationships. If all previous steps are successfully completed, that indicates that consumer has reached a stage when one is ready for endurable relationship with a brand and investment into this relationship. Thus, according to Keller brand resonance is the ultimate aim of every marketing strategy and campaign.

Summarizing all above, positive customer-based brand equity leads to increase of the probability of brand choice, greater consumer loyalty, and the decrease of vulnerability to competitive marketing actions, ability of the brand to command higher prices and larger margins, increase marketing communication effectiveness and bring additional brand extension opportunities.

Keller's point of view on brand equity dimensions is deeply connected to Aaker's approach. Although the model distinguished four main building blocks of brand equity, they correlate to dimensions, described by Aaker, and, therefore, can be combined with them. Therefore, the author of this paper recognizes those dimensions as highly correlated and suggests considering them as equal in terms of value in order to simplify the following research and make it easier to understand the role of each dimension.

Keller's approach	Aaker's approach	Dimensions for the research
Brand salience, brand imagery	Brand awareness	Brand awareness
Brand performance, judgments and feelings	Perceives quality	Perceives quality of a brand
Brand resonance	Brand loyalty	Brand loyalty

Table 1. Main brand equity dimensions.

The table above shows the dimensions of brand equity, the effect of digital solutions on which will be examined during empirical part. These dimensions were chosen due to several factors: they are the main targets of digital marketing solutions, they are easily observable from the customer perspective, and they can be simply quantified with Likert-scale questions.

Summarizing literature review on brand equity, the author finds important to mention that the phenomena was intensively studied by different researchers, but the main frameworks belong to David Aaker and Kevin Keller. That is why the author of this paper focuses on concrete dimensions of customer-based brand equity, which were extracted by both researchers. These dimensions are brand awareness, perceived quality and brand loyalty.

1.2. Digital marketing as a new way to strengthen brand equity

Last decade has changed the shape of communication between people. Although the term 'internet' was first used in 1974 by US computer scientist Vinton Cerf known as a "father of the internet", its penetration to daily life of ordinary people has happened mostly between 2000 and 2010. Nowadays, people are mostly using their digital devices for speaking to a friend, searching for a good restaurant or buying new furniture. The research of eMarketer in 2016 showed that people now spend more than five hours per day on surfing the Internet (Haucke 2016). There are more than 3.6 billion internet users globally where Internet penetration mostly concentrated within regions such as North America – 89%, Europe – 74% and Australia – 73% (Internet World Stats 2016). Russian Federation owns over 87.5 million active internet users, and 67 million of them are active users of social media accounts such as Vkontakte, Facebook, and YouTube etc. Russian online market made more than \$36 billion in 2016 (Smart Insights 2015).

The advent and evolution of the Internet environment and computer-mediated communications resulted in a high degree of digitization of brands. Eventually, from just an occasional entertainment tool, the Internet has become the main channel of communication with consumers. Therefore, the strength of Internet is massive and still grows swiftly since digitized activities have become a mediator that leads to traditional communication channels. For modern companies, growing brand equity through digital channels is a key objective of delivering value to customers and gaining profits. This could be achieved through a development of successful digital marketing strategy.

Digital marketing has emerged as a separate branch of indirect marketing over the last decade with its origins rooted in direct marketing. Research company Gartner in 2016 defined digital marketing strategy as: "the process of articulating the vision, goals and opportunities — as

well as the processes, people, technology — to create deeper interactions with customers, more personalized offerings, data-driven decision making, and customer experience models that are more nimble and reactive to changes in customers' needs, wants and interests". In 2015, Sharma & Sheth described digital marketing as "a subcategory of marketing that uses digital technology to place and sell products". Business dictionary gives a definition of digital marketing as "the promotion of products or brands via one or more forms of electronic media".

Thus, the definition of digital marketing differs from a traditional definition of marketing given by Kotler, which is "the science and art of exploring, creating, and delivering value to satisfy the needs of a target market at a profit. Marketing identifies unfulfilled needs and desires. It defines, measures and quantifies the size of the identified market and the profit potential" (Kotler and Armstrong 2017). Generally, digital marketing focused on personalized communication and data-driven processes. It involves marketing efforts in digital marketplace and works on identifying and satisfying customer needs there. Kent Wertime and Ian Fenwick in 2015 highlighted that digital environment includes usage operating systems, internet browsers, email, mobile platforms, gaming via variety of electronic devices (Wertime and Fenwick 2015). In 2016, Aaron Smith added the growing role of social media and video.

1.2.1 Digital customer experience and marketing solutions

The ultimate goal of digital marketing is to involve consumers in a variety of unique and tailored online experiences, which can add value to customers' decisions about a brand at different stages of the buying process. Therefore, digital customer experience is the sum of all customer experiences that a customer has with a brand via all possible digital touch points and instruments. Digital marketing focuses on providing a positive digital customer experience. Positive customer experience has been shown to produce significant results— the expansion of customer base, the increase of sales, and a surge of enduring relationships with consumers. Creation of a successful customer experience claims for reliability, unique value proposition, ongoing content creation and optimization, continuous research, as well as time and resource commitment (Chaffey, et al. 2013).

Researchers from Jupiter Research distinguished seven key ways in which the adoption of technology is influencing consumer behavior and, therefore, customer experience (Jupiter Research 2017):

- Interconnectivity. Digital technology allows consumers to connect with each other more rapidly. The geographical and time borders are erasing, letting consumers interact and reinforce building virtual communities such as Facebook, Linkedin, Vkontakte.

- Alignment of information field. Internet encourages creation and consumption of content by users easily. As a result, the scope of information available to consumers has tripled. Thanks to availability of sources, nowadays, consumers are able to conduct their own unbiased research about products and services before the purchase. Digital technology shifted the balance of power in favor of the consumer.
- Filtration of advertisement. Huge volume of information forces digital consumers to choose only information flows that relevant and ignore everything that is perceived as useless. People use personalization features to exclude unsolicited commercial content.
- Growth of niche aggregation. The diversity of online content allows users to find services according to their interests. Communities of like-minded individuals flourish in online environment.
- Prosperity of content publishing. Consumers nowadays are more likely to express themselves. Publishing personal content costs nothing, but attracts attention and empathy. Different discussion forums, message boards, feedback forms, voting platforms or blogs drive participation and communication.
- New type of consumer: "prosumer". Digital consumers are highly involved into creation
 of image of the products and services they purchase. That indicates a shift from producer
 to consumers: they are tend to specify, create and customize requirements. Accustomed
 mass marketing is becoming obsolete.
- Acceleration of business processes. Digital environment allows consumers to satisfy needs more quickly and with fewer barriers. Timing, location and physical stores are becoming irrelevant.

Summarizing all above, it is worth mentioning that digital environment is constantly changing and shaping new types of customer experience. For marketers this shift in consumer mindset represents a great deal of challenges where marketing teams should focus on new ways of interaction with consumers in order to connect with them. For the research paper, it indicates that digital marketing allows creating a variety of different channels that can be focused on particular aim such as gaining more awareness or retaining old customers.

Additionally, it is worth mentioning that digital marketing solutions have to be integrated into the overall marketing and business strategy. The most successful brands allocate significant resources to integrate digital marketing strategy within overall strategy, because digital marketing is not about technology but it is about understanding how consumers use the technology and how marketing team can leverage it in order to engage people in the most effective way. However, according to Dave Chaffey, who made a research on the level of adoption of digital marketing solutions by companies, approximately 47% of brands do not have a clearly defined digital marketing solutions implemented to the marketing strategy . (D. Chaffey 2017)

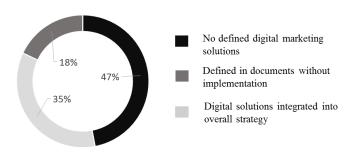


Figure 6. Level of digital marketing adoption. Source: Dave Chaffey (2017).

Improper implementation of digital marketing solutions can lead to a failure to achieve a stable customer base, well-perceived quality of a brand and poor loyalty among consumers. Therefore, it is essential for brand managers to define digital marketing strategy clearly and pick the most appropriate digital solutions, which will contribute positively towards the relationship with customers.

Digital environment changes daily and it is vital for brands to keep up with trends in order not to become obsolete. In 2016, Ellen Gomes indicated prevailing digital marketing trends for the next 3 years (Gomes 2016):

- Mobile Video Advertising. Mobile video ad expenditures only in the United States more than doubled from 2013 to 2014 up to \$1.5 billion, and, according to eMarketer, the value is predicted to reach \$6 billion by 2018. The strategy includes using video in different applications and social media since the user cannot skip the ad. For a company it is a challenge to create a memorable ad for a brand and at the same time to create an ad that motivates consumers to watch it again.

- Native Advertising. The strategy uses paid media where the ad experience follows the natural form and function of the user experience in which it is placed. Native advertising includes different forms such as an article, video, image or other promoted content. Although native advertisement campaigns are expensive, they bring trust of a brand from consumers. The research shows that average brand recall with native advertisement is two times more than the traditional banner ad.

- Behavioral Targeting is a type of strategy that uses context advertisement to increase the brand recognition and generate sales through information collected on an individual web-searching behavior, such as the pages they have visited or the searches they have made. It benefits from targeting right consumers via collection the data about their behavioral habits. Therefore, consumers' engagement rate will grow and that will lead to increased click-through-rates and higher levels of interaction.

- Virtual Reality. The strategy that has a lot of potential in the future and will able to capture and target right consumers. Virtual reality (VR) is an artificial environment that creates an environment that is perceived as real by users. It can be divided into two forms: the simulation of a real environment for training and education and development of an imagined environment for a game or interactive story. Among the advantages of VR, improved retention and recall of a brand can be highlighted.

In summary, innovations that are evolving in marketing influence brands and their communication with customers, which, in its turn, affects brand equity. It is worth mentioning that the borders between traditional and digital marketing are becoming more blurred. Digital marketing is a fast evolving field of research for marketers that allows them to boost two-ways interaction with consumers to communicate timely and relevant, to customize service and content to the needs of customers. Thanks to digital marketing, brands can create and track relationships with consumers in effective differentiated ways.

There is a variety of digital marketing solutions that used by companies in order to reach specific goals. They can be divided into sub-categories and can be combined with each other. However, initially it is essential to observe digital marketing solutions from the prospective, which examines media involved into solutions (Edelman and Salsberg 2016).

For example, paid media, first category, is the easiest way to create brand awareness if a company has enough money to pay for it. It refers to advertising in the internet through usage of banner ads, pay-per-click advertisement and relatively new sponsored social media content. The advantage of this type of media is the possibility to drive direct traffic through promoted content. It is also easy to scale and control through amount of transitions. However, the main disadvantage of paid advertising is that in most cases users turn off paid advertisements and do not pay attention to them.

Second category is related to owned media, which is simply content a brand creates by itself. It includes a website of the brand, its blog, and the content it distributes on its own social media pages and channels. The more owned media the brand has the more chances it has to extend

presence in the digital environment. The main significant benefit of owned media is the brand's ability to control it. Owned media strategies are aimed onto creation of direct long-lasting relationships with consumers (building brand loyalty). However, the main obstacle for having a successfully implemented owned media channels is to find content that best fits a brand and satisfies customers at the same time.

Earned media is the third group of tools and techniques and the most difficult in terms of gaining but the most precious in terms of its credibility and influence on consumers. This type shows how a brand is represented in digital space without advertising itself. The category includes press coverage, social media mentions, shares and retweets, product or company reviews, and blog posts authored outside your company. When leveraged properly, earned media could reach more consumers than other types of media and get insights from customer perspective about a brand.

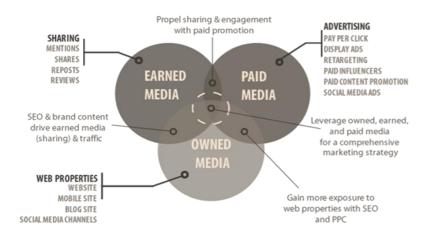


Figure 7. Digital marketing divided by media types. Source: Edelman and Salsberg, 2016.

The graph above represents the interconnection of all three types and highlights the importance of combination of median in order to achieve desirable engagement of audience. Besides, whereas earned media might be the most influential for a brand, paid and owned media are base steps for achieving developed earned media. Since it is hard to observe from the customer prospective the influence of paid media, the author of research focuses on owned media that includes branded content from the website, social media, email subscriptions and other.

Moving to the types of digital marketing solutions, it is important to state that there is no common opinion on them, but there are several major solutions, which are perceived as reliable and pursued by majority of brands. The author of the research examines main classifications of base solutions to understand, which are still relevant and which can be considered as obsolete.

For example, according to Chris Leone, digital marketing is generally consists of two big groups: offline and online activities. Offline marketing includes channels like radio, television and phone advertising. The research paper does not cover these activities. Online marketing consists of the following major categories (Leone 2015):

1. Website performance. This solution aims to promote the official website of a brand in order to increase awareness, drive new sales and loyalty.

a. Search engine optimization (SEO). The technique is focused on growing visibility in organic (non-paid) search engine results. SEO implies both technical and creative elements that should be implemented into website to improve rankings, drive traffic, and increase awareness in search engines. In addition, it helps to increase the quality of the website by making it more user-friendly.

b. Pay-Per-Click (PPC). The tool differs from SEO because it implies the process of increasing website traffic by purchasing ads (such as Google AdWords and Bing Ads) on search engines. In this case, advertisers can display ads for their goods or services when users enter relevant search queries into engines. At the same time, advertisers are charged only when a user actually clicks on the ad. One huge advantage of PPC is that it allows targeting audience precisely and increase a client base instantly.

c. Content marketing. Covers different types of techniques such as analysis of content and information preferences of target audience, creation of content that is aligned with strategic goals of a brand, optimization of content for particular customer segments. Content Marketing Institute explains content marketing as "a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly defined audience". The technique targets the problem of relevance of brand communication with its customers, fulfilling website with interactive content that might result in greater perceived quality of a brand as well as increased loyalty. Among advantages of content marketing are also higher visibility in search engines and more referral traffic.

2) Social Media Marketing (SMM solutions). This method refers to different social networking platforms that allow consumers to produce, consume and exchange content, socialize and interact with each other. It encourages a usage of social media websites and social networks to market brands. Social media marketing aims the following goals: increasing website traffic, building conversions, raising brand awareness, creating positive brand association and increasing perceived brand quality. Researchers highlight two types of SMM: media research and media presence (Kaplan and Haenlein 2015). Media research includes search of information about

customers. Media presence is an indicator of how well a brand is represented in diverse social media. The main platforms for social media solutions nowadays are Facebook and YouTube. They both aimed to grow brand equity; however, their fundamental difference is in content. Facebook is more about friendly two-way communication where consumers can ask questions and express their opinions, whereas YouTube is more about visual content that can be shared, liked and commented.

3. Email marketing. The technique is known as the one of the best ways to personalize communication, and it is easy to track conversions. Email marketing includes different types of emails, such as welcome email, informational emails and digests, commercial letters and direct mails. All of them are differentiated by content and main goal. Among the advantages of email marketing are its inexpensiveness, the ability to create the relevant customer database, direct communication between the brand and the consumer, effective involvement in the implementation of the necessary interactions (information sharing, viewing recommendations, purchasing), increase of efficiency through personalization based on customer information. Author of the research paper would like to test how email marketing solutions (welcome and informational emails) influence perceived quality and brand loyalty.

In summary, the classification of Leone describes three major solutions, which can be pursued by brands in order to achieve greater awareness and loyalty. Due to its' coverage of all main solutions, the classification can be applicable to the empirical part of study. In addition, Procter and Halfpenny in their book highlight three main digital solutions that can lead to the success in digital environment: community creation via leveraging social networks, relationship building via website and contests and trademark establishment (Halfpenny and Procter 2015). This brings into the light the fact that website performance and social media marketing are core activities for digital marketing.

Developing the classification of Leone, Andrew T. Stephen in his article claims that digital marketing builds on and adapts the principles of traditional marketing, using the opportunities and challenges offered by the digital medium (Stephen 2015). He underlines, that digital solutions' components can lead to specific outcomes. For example, website performance, which is divided into three blocks, such as search engine optimization, pay-per-click advertising and content marketing, drives brand awareness, increases perceived quality of a brand and contributes to brand loyalty. Similarly, social media marketing aims to enrich audience extract the latent needs of customers through feedback and reinforce a base of loyal customers. Email marketing mostly influence perceived quality of a brand by content offered

in subscription, as well as drives brand loyalty. The outcomes of different digital solutions are summarized in the table below.

Digital solution	Outcome
Website performance: SEO	Brand awareness
	Plays key role in gaining new customers and allows
	reaching more potential customers.
Website performance: PPC	Brand awareness
	Allows reaching people who are already in the buying
	cycle or are expressing interest in what they have to offer.
Website performance: content	Perceived quality, brand loyalty
marketing	Helps to target precisely audience with right content
	thereby triggering constant interest in what a brand offers.
Social media marketing	Brand awareness, perceived quality, loyalty
	Allows consumers to interact with a brand and be involved
	in decision-making process. Well-managed social content
	can go viral and create a massive brand awareness.
	Besides, being interactive, it creates positive judgments
	among customers and leads to loyalty.
Email marketing	Perceived quality, loyalty
	Direct communication with customers leads to better
	understanding of their needs.

Table 2. Digital marketing techniques and their outcome. Source: Stephen, 2015.

The table leads to a conclusion that digital marketing solutions such as website performance, social media marketing and email marketing are deeply connected to a concept of brand equity, moreover, their primary goals addresses the problems of growing the concrete variables of brand equity that leads to a growth of overall brand equity. Therefore, these solutions can be taken for the empirical research. The author of the paper focuses on three major digital marketing solutions such as website performance (content marketing), social media marketing and email marketing due to ease of the observation from the customer perspective.

In summary, from the literature review it can be concluded that brand equity concept is highly connected to digital marketing solutions, which main aim is to contribute to brand equity. There are dozens of models that explains brand equity concept, but main are connected to customer perspective and are correlated with the research of Aaker and Keller. Digital marketing is changing the way of developing brand equity that is why marketers are implementing digital solutions into overall marketing strategy. Andrew Stephen described the outcomes (effects) that certain digital solutions aim to fulfill, but there is still a debate, whether digital solutions are effective in the way they are perceived or not. Thus, for the current study, it is important to develop a framework (model), which tests the relationship between digital solutions and dimensions of brand equity.

1.3 Development of a conceptual research model

The researchers have extensively explored the design of brand equity, however, measuring brand equity in a digital environment as well as identifying variables of brand equity that facilitate successful differentiation of brands in digital environment has been poorly explored. The evolution of the Internet environment, which is characterized by high degree of connectivity and interactivity, digitized products and loads of information, had a fundamental impact on communication of brands with consumers. Nick Blunden, marketing director of Profero mentioned in his interview: "The opportunity to create genuine, lasting dialogue is priceless, and brands can gain more valuable opinion and information on a social network than from any focus group or questionnaire. The key to success is open-mindedness, a willingness to engage in debate, and the persistence to maintain conversation with users for as long as they feel it is necessary. People will embrace brands if they take the time to interact, and placing such an emphasis on consumer respect will be rewarded with invaluable levels of loyalty and trust" (Blunden 2014).

Several years ago, one of the most popular models of brand communication AIDMA was transformed by Japanese advertisement agency Dentsu into AISAS-model that covers communication in digital environment (Sugiyama and Andree 2011). According to the model, the first step over winning customers is the attraction of the attention of a consumer and cause of the interest. This step aims to increase brand primary brand awareness. AI can be achieved through digital solutions, such as website performance and social marketing, which introduce consumers with brand values and offers. Eventually, a consumer starts searching information about a brand and evaluating qualities of a brand according to the digital representation of the last one. The step is called SA (search and action) and aims to form positive brand associations and good perceived quality of a brand in consumers' mind. The model completes with the action of purchase and sharing it with others in the network, which indicates hints of loyalty towards the brand.

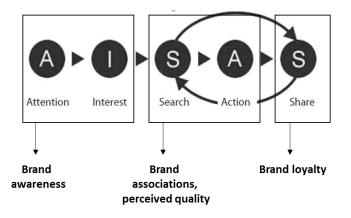


Figure 8. AISAS model of brand communication. Source: Sugiyama and Andree, 2011.

The model describes the digital customer journey systematically, however, does not take into consideration exact digital marketing solutions. Therefore, the author of the paper contributes to the model by adding specific marketing solutions into it.

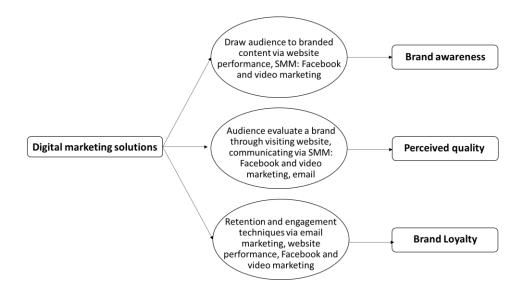


Figure 9. Digital marketing funnel. (Author, 2017)

First, digital marketing solutions greatly affect brand awareness among consumers by drawing their attention towards branded website, social media pages and videos. Secondly, customers are tend to evaluate brand through the perception of its digital techniques. If website has a poor quality or Facebook group has no attractive content, consumers' attitude towards the brand's quality is deteriorating. Finally, email communication, website performance or SMM are aimed at creation of long-lasting relationships with brand consumers, therefore they affect brand loyalty. Thus, author proposes the following hypotheses for the research: It is important to

mention, that the purpose of the study is to identify the nature of relationship between concrete digital marketing solutions and certain dimensions of brand equity separately that is why the connection of brand equity dimensions is purposely ignored in this research.

Well-implemented digital marketing solutions help companies to raise brand awareness, create excellent reputation, cultivate engagement of consumers and deliver outstanding value. Thus, after extraction of concrete brand equity dimensions and explanation of possible relationship between digital marketing solutions and brand equity dimensions, the research hypotheses can be formulated on the base of previous research.

 H_1 Digital marketing solutions positively influence brand awareness. (Bruhn, 2012; Brunello, 2014)

In a contemporary fast changing reality where every industry is flooded with new brands, the ability to stand out in consumers' minds is a significant asset that can indirectly influence conversion opportunities. In 2012, Bruhn, Schoenmueller and Schäfer investigated effects of digital marketing (particularly, social media) and found that media content created by the firm had a positive effect on brand awareness. Similarly, engaging content allows users interacting with a brand and that creates word-of-mouth, which leads to brand awareness (Bruhn, Schoenmueller and Schäfer 2012). Therefore, it is essential to examine what digital marketing solutions affect brand awareness mostly, and there are several sub-hypotheses:

 H_{1a} Website performance marketing positively influences brand awareness.

 H_{1b} Brand presence on Facebook positively influences brand awareness.

 H_{lc} Video marketing positively influences brand awareness.

Same researchers as were described above investigated effect of digital marketing on perceived quality compared to traditional marketing. The results showed that firm traditional marketing strategies had lower effect on perceived quality compared to digital marketing. An interesting fact is that user-generated content had more strong effect on hedonic perception of a brand whereas company-generated content affected functional perceptions (Bruhn, Schoenmueller and Schäfer 2012). It leads to the conclusion that development of digital marketing activities allows company to build a distinctive brand perception.

 H_2 Digital marketing solutions positively influence perceived quality. (Bruhn, Schoenmueller and Schäfer 2012)

Similarly, for perceived quality several digital solutions ware going to be tested for the effect on dimensions of brand equity.

 H_{2a} Website performance marketing positively influences perceived quality.

 H_{2b} Brand presence on Facebook positively influences perceived quality.

 H_{2c} Video marketing positively influences perceived quality.

 H_{2d} Email marketing positively influences perceived quality.

Finally, the major portion of digital marketing solutions aimed to raise brand loyalty among consumers. Building up loyalty within digital environment became more challenging due to availability of huge flows of information. The main problem is that everything linked to digital world becomes irrelevant two or three times faster. Digital environment offers a quantity of ways that keep customers loyal to a brand. Therefore, it is vital to drive loyal customers, because they are the main source of revenue and competent opinion about a brand. The hypotheses that tests the nature of relationship between digital marketing solutions and brand loyalty are the following:

 H_3 Digital marketing solutions positively influence brand loyalty. (Khan, 2015; Pourdeghan, 2015)

 H_{3a} Website performance marketing positively influences brand loyalty.

 H_{3b} Brand presence on Facebook positively influences brand loyalty.

 H_{3c} Video marketing positively influences brand loyalty.

 H_{3d} Email marketing positively influences brand loyalty.

Thus, the author highlights three general hypotheses that are divided into several subhypotheses that test the effect of concrete digital marketing solutions on dimensions of brand equity.

Summarizing previous paragraphs, author of this paper suggests a framework that provides understanding concerning the effect of digital marketing solutions on certain brand equity variables. The framework is based on the previous studies including a combination of models from different researches such as Aaker, Keller, and Leone. It is aimed to verify whether there are positive correlations between implementation of digital marketing solutions and brand equity variables (from the consumers' perspective). From the previous paragraphs it can be concluded, that base digital marketing solutions include website performance, social media marketing and email marketing (Leone 2015). The author has chosen these digital solutions for the framework, intending to examine the effect they have on brand equity dimensions. It is important to mention that from the website performance solution author examines search engine optimization (how easy is to find website for a consumer) and content marketing (the interface and information on website. From social media marketing Facebook presence and video marketing were taken into consideration due to the assumption that they can be the most influential for the chosen market.

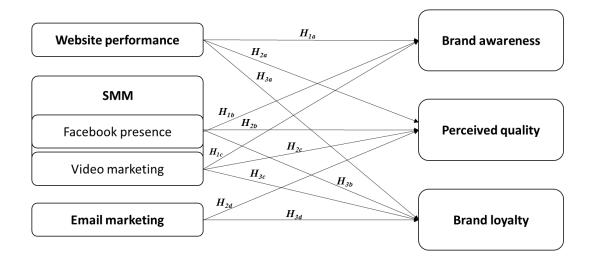


Figure 10. The influence of digital marketing solutions on customer-based brand equity dimensions, theoretical framework. Source: Author, 2017.

Each digital solution (website performance, social media marketing, video marketing and email marketing) is assumed to have a positive effect on certain dimensions of customer-based brand equity. The framework can be applicable for different industries, but for this research the concrete industry was chosen, which is going to be described in the next chapter.

In summary, the analysis of literature in the field of brand equity and digital marketing solutions allows making following conclusions.

Firstly, brand equity is a complex and multi-faceted concept that needs to be captured through a set of measures rather than a single measure. An extensive research has been done in the field of brand equity, and this research focuses primarily on customer-based brand equity and its variables. Therefore, some of the customer-based brand equity dimensions were chosen for studying in the research. These dimensions are brand awareness, perceived quality and brand loyalty.

Secondly, nowadays, with digital environment evolution and the immense volume of information digital presence is becoming a central issue for brands that want to outperform the competitors and capture more customers. The influence of digital marketing strategies on brand equity variables has not been investigated well enough, which leaves questions of effectiveness of those solutions

Finally, there is a variety of digital marketing solutions that can be tested for the effect on customer-based brand equity dimensions. This paper concentrates on website performance, social media marketing, including only Facebook presence and video marketing as well as email marketing.

CHAPTER 2. DIGITAL MARKETING SOLUTIONS OF LUXURY COSMETIC BRANDS

The world market of cosmetics and personal care products is growing early, and it is projected to only increase in the upcoming years. According to the majority of analytics, unconditional leaders among cosmetic manufacturers are multinational companies, which represent the largest part of all manufactured products. Russian market of cosmetics showed the turnover about \$ 10.6 billion in 2015. Thus, Russia still ranks fourth in the world, after Germany, France and Britain, holding approximately 3% of global share (Koshkina 2016).

Nowadays, the Internet is one of the most important channels of finding information about cosmetic products. According to Google Trends, the volume of inquiries related to make-up and cosmetics for the last 5 years has increased by 46%, which confirms the important role that the Internet sphere has acquired in the cosmetic field. Besides, YouTube has become one of the channels, which every year plays an increasingly prominent role in this area. According to the company Pixability, in recent years, the growth rate of popularity of videos about beauty and cosmetics on the portal was 50% per year, which in absolute value - more than 45 000 million views per year (Pixability 2016).

Therefore, the aim of the chapter is to review and analyze the cosmetic industry in Russia. One of the main reasons for the choice of the market became the fact that beauty brands are heavily embracing new digital opportunities in order to create unique customer experience. However, author wants to investigate how luxury cosmetic brands perceive digital solutions. Three out of four luxury shoppers own a smartphone and about half own a tablet, according to the interviews with more than 3,000 luxury customers in six major luxury markets that were conducted by a huge consultancy firm (McKinsey&Company 2014). Therefore, it is important for luxury brands to maintain high quality digital marketing solutions.

The chapter consists from

2.1 Cosmetic industry

2.1.1. Market Overview

In the last 20 years, global beauty market has been growing by 4.5% a year on average. According to Allied Market Research, by 2022 the cosmetics market is expected to reach 429.8 billion dollars, registering a CAGR of 4.3% during the forecast period 2016-2022 (Allied Market Research 2016). Mass cosmetic brands had higher sales than premium brands in 2016, because the majority of customers have been experiencing low spending power, which continued to benefit the mass segment. At the same time, brands are increasingly attempting to attract younger generation, because they are more interested in beauty products due to growing social pressures and especially influenced by social media (Euromonitor 2017).

The global cosmetics market is segmented according to the category of cosmetics, mode of sale, gender and geography.

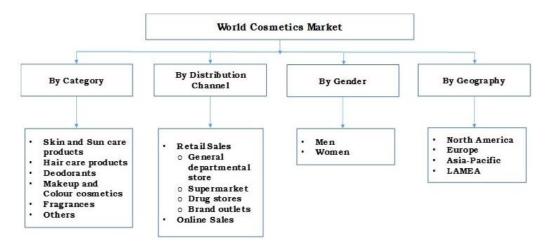


Figure 11. Segmentation of cosmetics market (Euromonitor 2017).

The first segment includes a variety of categories of cosmetics such as hair care products, deodorants, makeup and color cosmetics, fragrances etc. It is worth noticing that during the last twenty years the structure of sales by categories changed significantly. Changes presented in the following table.

Product category	1998	2016
Skin care	16.4%	36.4%
Hair care	20.8%	22.9%
Makeup and color cosmetics	13.5%	18.2%
Fragrances	12.9%	10.5%
Toiletries, deodorants	31.2%	12%

Table 3. Breakdown of the cosmetic market worldwide (Statista 2016)

Nowadays, skin care products have become the most significant segment, with its 36.4% of the market share. The global skin care market has subdivisions such as facial care (2/3 of the total sales), hand and body care and sun care. The success of this segment is provided by ageing of population in developed countries as well as increasing demand for skin whiteners in Asian market.

Second segment is connected to distribution channels where retail sales still hold the biggest share. However, non-store retailing channel, which includes direct sales and sale over the internet, is gradually increasing year by year (approximately \$20 billion of sales in 2015 were generated on the Internet). Third segmentation is simply by gender. It is essential to mention a growing trend towards men cosmetics due to changing customers' behavior. The final segmentation includes geographical markets: North America, Europe, Asia-Pacific and LAMEA.

Returning to Russian cosmetics market, it is important to mention that the last decade the market was experiencing steady growth and was one of the fastest growing industry sectors in Russia. The last couple of years was marked by constantly increasing demand for high quality and individualized cosmetic products. International and local companies created awareness of existing difference between skin and hair types, as well as the advantages of specially designed products. Nowadays, cosmetic brands are considered as a means for the general improvement in health.

Domestic manufacturers in Russia hold only 30% share of the market. Instead, contract manufacturing is becoming popular because firms are constantly looking for reduction of their costs. Concerning the distribution of cosmetics, the industry experienced significant changes as well, where huge retailers and online sales became the key players replacing distributors. The following table represents split between main distribution channels.

Distribution channel	Market share in 2015	
Cosmetic retail chains	33.5%	
Other (supermarkets, online)	32.1%	
Direct sales	21.9%	
Outdoor markets	7.2%	
Pharmacies	5.3%	

Table 4. Distribution channels in Russia. (U.S. Commercial Service 2015)

Specialized cosmetic retail chains such as L'Etoile, Rive Gauche and Ile de Beaute with developed network of outlets in all major Russian cities are showing the fastest growth rates. Similarly, the internet has recently become an important distribution channel. There are projections that by 2025 more than 50% of all sales of cosmetics will shift to online environment. (U.S. Commercial Service 2015)

Analysis of the global cosmetics market leads to the following conclusions: the demand for cosmetics will keep growing, fueled mostly by the emerging markets, such as Asia, Russia and

Latin America; skin care cosmetics segments showed the biggest growth potential. It is projected to remain the flagship segment over the next few years; the distribution structure is changing, as online sales channels show significant growth. Similarly, Russian market is representing significant growth with major share of international players. From the customer prospective, luxury and individualized cosmetics started to play more important role.

2.1.2. Digital transformation of cosmetic industry

Digital world is changing the way brands interact with their customers. Nevertheless, not all industries has adapted digital marketing strategies into brand communication yet. According to Harvard Business Review, Unsurprisingly, the most disrupted organizations were B2C with approximately 57% of companies in consumer products industry are anticipating massive digital disruption.

In the beauty sector, the in-store interaction has always been the most important for brands to communicate with their customers. However, in recent years, the digital landscape has offered equally important touch points. In a crowded and highly competitive sector, standing out means expanding brand's digital presence in order to get closer to the consumer, moving beyond that single point of in-person interaction to trace the journey the customer takes to get there. Nowadays, consumers are discovering products on mobile, shopping online and spending less time in stores than ever before.

The beauty industry is launching more digital tactics than ever targeting millennial consumers. Alice H. Chang, CEO of Perfect Corp. mentioned, "Millennials are eager to try on multiple products from leading cosmetic brands, they see added value in using true-to-life virtual tools to create their own individual looks, which they actively share and discuss through social networks".

A great example of embracing digital is L'Oreal and their Make-up Genius app, a virtual mirror that allows customers to apply products via face-mapping technology. This allows the users to try on cosmetics virtually, to save their look and to add desired products to the wish list. At the same time, L'Oreal indicates personalization as a key component of its digital strategy. The brand collects dozens of data fields for each product category, resulting in over one and a half million possible personas for Make-up Genius alone.

The French cosmetics brand Yves Saint Laurent also took over digital environment and created an innovative 'The Beauty Workshop', which involves watching videos about latest trends

in cosmetics in specially made digital workstations. By offering its audience an additional service, that other competing brands are yet to provide, Yves Saint Laurent is positively increasing its level of brand interaction and engagement while educating customers about the brand and giving them all the information about product.

In the end of 2015, Estée Lauder launched its loyalty program Estée Loyalty List. The program is designed for the website and adapted to smartphones. It takes consumers on a journey with Estée Lauder products via personalized questions. In the end, a personalized product is offered for customers, who are already prompted to purchase. Besides, Estée Lauder provides constant support of customers (beauty advice). Similarly, the company drives brand awareness among millennial audiences using influencer partnerships and popular video content. For example, Estée Lauder's "I love makeup" YouTube channel draws mostly organic views. Launched in April 2013, the content hub has generated 560 percent more views and nearly 2300 percent more subscribers than the flagship channel.

Similarly, organizations are also using digital features as a way of enhancing a customer's brand perception. For example, the Burberry Beauty Box has been designed to combine technological innovations with the brand's traditional heritage and to create the ultimate luxury shopping experience. Burberry have taken a different approach to fellow competitors and embedded technology within their store to highlight how digital features are now becoming very much the norm in retail life. By the action they are encouraging their customers to use digital platforms as a way of interacting with their favorite cosmetics, thus, making the option of online shopping within this market both more accessible and attractive.

According to Google, 66% of cosmetic brands customers confirmed that YouTube influenced their purchases by helping them visualize how products fit into their lives. It leads to a conclusion, that cosmetics brands started to follow in the footsteps of fashion retailers by creating original content alongside their product mix to increase brand awareness and help with SEO.

In summary, global trend authority WGSN has identified four significant trends that it believes will change the face of today's beauty industry, among which the trend of "always-on assistant". The trend predicts even more interactive communication of cosmetic brands with consumers with technologies such as VR and AR enhancing both online and real world experiences.

2.2 Luxury cosmetics and rationale of choice of brands

Analysts from IBIS World in their report "Global Cosmetics Manufacturing" indicate that the edge of innovation in the industry belongs to luxury segment and ecological solutions. Luxury cosmetic brands are those that occupy the highest price segment with distinctive brand position and highly selective communication with customers. Among them are Christian Dior, Chanel, Guerlain, Estee Lauder, Yves Saint Laurent, Burberry, Lancome, and Givenchy.

Global cosmetics luxury market has grown by 5.7% in 2015 (EY 2016). As the digital environment continues to broaden its horizons and constantly innovate, brands similarly must develop their way of communication with customers. Creativity, innovation and differentiation are crucial in today's digital marketing, and brands must invest in creating original engaging content. Luxury cosmetic brands has started to embrace the digital space recently, where digital apps and social media are now becoming the face of the brand. These brands are gaining around four percent of all luxury sales from the digital environment (Parr 2015).

The main target for luxury brands became new generation, called "Millennials". Among luxury segment, the following trend is demonstrated through the growth of the share of prestigious brands that produce products specifically for young people. It is projected that by 2035, Millennials will have the potential to become the largest spending generation in history (Danziger 2015). The most noticeable fact is that the generation prefers experiences to the things. Thus, luxury brands are also shifting their focus from the products to the unique experience people can have with these products.

Burberry is one of the most notable examples of brands with successfully embedded digital marketing solutions. Burberry has started the luxury tech revolution producing engaging and exciting digital content, allowing them to dominate the online presence. They launched a huge multifaceted digital campaign called "The Art of Trench". With a specially created YouTube channel and other social media accounts to promote the new product, Burberry was able to precisely target, engage and interact with consumers on a global scale (17 million followers on Facebook and 4.5 million followers on Twitter).

Another example is well-known brand Chanel that took advantage of its rich history and the symbolic figure Gabrielle Coco Chanel. To articulate the brand identity in a narrative way, Karl Lagerfeld, head designer of Chanel, directed several mini films to revitalize the brand image, which eventually attracted the whole world reaching over 11,000,000 views on YouTube.

Lancôme is another representative example that actively uses digital marketing solutions for communication with customers. The brand inserts makeup videos on its branded website to trigger email subscriptions featuring the catalog of products mentioned in the video. This technique successfully links a variety of best practices, among which are blogger influence and video content. The trigger email effectively extends Lancôme's site experience to the user's inbox, ensuring that the interactive experience remains at the forefront of consumers' minds. After implementing a digital solution, Lancôme experienced an overall 4% conversion uplift leading to significant increases in revenue.

Brand Guerlain has been successfully integrating Instagram project #GuerlainTerracotta, targeting younger generation and achieving huge response from consumers.

Digital marketing allows brands the opportunity to build relationships with new and existing customers globally. The digital marketing data allows brands to measure the customer interaction, to improve customer experience, and to understand what their needs are. Luxury cosmetic brands are acknowledged that customers want to be taken on a journey and engaged in every stage of it. Consumers are no longer passive buyers, they want to be impressed and be heard, and they are desperate for a two-way conversation. This rising trend is changing the way luxury brands act in the market. They are no longer just about tradition and heritage; they are about constant innovation and integration with customers.

Summarizing all above, it is worth mentioning that millennial targeting is changing the face of luxury brands (Smith 2015). According to the CrowdTwist study, approximately 85% of respondents from millennial generation would not buy a brand, if it did not have a proper website, as well as 44% percent of respondents said that they use social media to spread the word about products or services.

It is worth mentioning that luxury brands, while pursuing digitization, can suffer from erosion of their value. The luxury brands are so demanding of the quality that it must be under control throughout the entire value chain. Moreover, luxury cosmetics can be characterized by exclusivity and inherent in its' high price. However, the Internet and digital environment, demonstrates the opposite: free access for all users, high power of consumers, decentralized communications, availability of e-commerce. For example, social networks are perceived by people as the instrument for communication with wide audience without any selection. Therefore, when the majority of people can become a part of luxury brand's community, for some consumers the exclusivity of the brand can be eroded, and this might be a good reason to switch to another brand. Similarly, email subscriptions can be perceived negatively by people, because they are overloaded by daily emails coming from different products and services. Therefore, some digital solutions might be threat for the luxury cosmetics, and it would be taken into consideration during the empirical research.

According to the world's leading independent branded business valuation and strategy consultancy Brand Finance, the most valuable brands in luxury segment in 2015 were Chanel, Estée Lauder, Olay, Lancôme, Clarins, Christian Dior, Yves Saint Laurent, Shiseido, Lux. (Brand Finance 2015). However, for the purpose of research it is essential to take into account only the most digitized brands with developed digital channels. Digital IQ L2 ranking highlights the following luxurious cosmetic brands as the most digitized (Rosen 2015): Lancôme, Guerlain, Yves Saint Laurent, Chanel and Estée Lauder.

All five brands have established different digital marketing solutions for communication with customers via channels such as website, email marketing. For social media marketing brands are using Facebook and YouTube. Unfortunately, only two brands out of five are presented in Vkontakte – Russian social network, therefore it was decided to concentrate on Facebook digital solution and to test how Russian consumers perceive it. The summary of the most digitized brands ant their digital marketing solutions is presented in the table below.

N⁰	Brand name	Digital marketing solutions		
1	Lancôme	Website performance, email marketing, SMM		
		(Vkontakte, Facebook, Twitter, YouTube,		
		Instagram)		
2	Guerlain	Website performance, email marketing, SMM		
		(Facebook, Twitter, YouTube, Instagram)		
3	Yves Saint Laurent	Website performance, email marketing, SMM		
		(Facebook, Twitter, YouTube, Instagram)		
4	Chanel	Website performance, email marketing, SMM		
		(Facebook, Twitter, YouTube, Instagram)		
5	Estée Lauder	Website performance, email marketing, SMM		
		(Vkontakte, Facebook, Twitter, YouTube,		
		Instagram)		

Table 5. The most digitized luxury cosmetic brands. (Digital IQ L2 ranking)

Since the aim of research is to draw conclusions on how specific digital marketing solutions of luxury cosmetic brands influence customers' perception about brands in Russian market,

therefore, the luxury brands and their digital marketing solutions, presented above, were chosen for observation in empirical research due to their positioning and active usage of digital marketing.

Thus, the second chapter reveals the key points related to the choice of the industry for research as well as the choice of brands. In summary, cosmetics industry is a constantly growing industry, which increases its digital influence with fast pace, allowing customers to interact with the brands on the daily basis via different digital marketing solutions. The leaders of the world cosmetics industry in the Russian market continue to be famous brands, represented by foreign manufacturers. The share of the three leaders, such as Procter & Gamble, L'Oreal and Unilever Group, accounts for about 30% of the market. Luxury cosmetics segment is also showing growing interest towards new solutions. The most expensive brands are pursuing different digital opportunities in order to reach broader audience and target younger generation.

CHAPTER 3. EMPIRICAL STUDY OF DIGITAL MARKETING SOLUTIONS EFFECT ON CUSTOMER-BASED BRAND EQUITY IN COSMETIC LUXURY SEGMENT

After extensive analysis of literature, proposition of the research model and hypotheses and description of the market, the paper proceeds with empirical study. The first part of chapter consists of research methodology and includes the description of methods chosen for the analysis and variables taken for the regression model. Second part includes the research design with the process of gathering data. Third part of chapter consists of analysis of data, which was done with IBM SPSS Statistics, and includes descriptive statistics, testing hypotheses with regression models, discussion of findings, limitations of research, theoretical and managerial implications.

3.1 Research methodology

Research method

The analysis of the literature showed that there is an extensive research on customer-based brand equity and the influence of traditional marketing solutions on it; however, there is a gap concerning the influence of digital marketing solutions on consumer perception of the brand. This research intends to cover the gap with theoretical framework, created and described by author in theoretical part by testing it with regression analysis. Regression analysis is the statistical approach, which is used to predict change in a dependent variable by changing one or more independent variables (predictors). In this research, regression models were used to analyze the effect of each digital marketing solution: website performance, email marketing, Facebook presence and video marketing, on certain dimensions of customer-based brand equity such as brand awareness, perceived quality and brand loyalty. Besides, in the end paired t-test was conducted in order to test the effect of general knowledge about certain digital marketing solutions on overall brand awareness, perceived quality and brand loyalty.

Mathematically, the regression equation can be described as following:

$$Y_{it} = \alpha + \beta_1 X_{1,it} + \beta_2 X_{2,it} + \dots + \beta_k X_{k,it} + \varepsilon_{it}$$
(1)

Variables

After development of a number of clear hypotheses in the previous chapter, it is essential to define to which measures are the most sufficient to achieve the goal of the research. Since the nature of research is customer-based, all the variables consist from customers' responses. Clearly, dependent variables are the ones connected to dimensions of customer-based brand equity, namely

brand awareness (GenBA), perceived quality (GenPQ) and brand loyalty (GenBL), which are measured by general questions before and after evaluation of digital marketing solutions. The target ones for regression analysis would be variables after evaluation, whereas data "before evaluation" would be used along with "after evaluation" in paired t-test.

Variable	Question in the survey, measuring variable	Name of variable in
		regression model
Brand awareness	I heard about cosmetics of brand X	GenBA1
(overall)	I am highly aware about cosmetics of brand X	GenBA2
Perceived quality	Cosmetics of brand X has high quality	GenPQ1
(overall)	Cosmetics of brand X meet the highest standards	GenPQ2
Brand loyalty	Cosmetics of brand X is my first choice	GenBL1
(overall)	I am ready to recommend cosmetics of brand X	GenBL2
	to my friends and relatives	

Table 6. Dependent variables for the regression model.

The independent variables in research were connected to digital marketing solutions. They are presented in the following table. For more detailed description of independent variables and questions connected to them, see appendix (appendix 2).

Digital marketing solution	Variable + name of variable in regression model
Website performance	Website awareness (WebsiteBA)
	Website perceived quality (WebsitePQ)
	Website loyalty (WebsiteBL)
Email marketing	Email perceived quality (EmailPQ)
	Email loyalty (EmailBL)
Facebook marketing	Facebook page awareness (FacebookBA)
(presence)	Facebook page perceived quality (FacebookPQ)
	Facebook page loyalty (FacebookBL)
Video marketing	Video awareness (VideoBA)
(YouTube presence)	Video perceived quality (VideoPQ)
	Video loyalty (VideoBL)

Table 7. Independent variables for regression model.

Besides, the author included three control variables that identify participants by gender, age and perceived income.

3.2 Research design and data collection

3.2.1. Preparation of the questionnaire

The best way to understand consumer perceptions towards different brands is to ask them directly. Therefore, author organized questionnaire to gather consumer data. Questionnaires are the widely spread method that allows to collect standardized data. Ackroyd and Hughes in their book "Data Collection in Context" highlight three types of questionnaires: actual surveys that are used to collect descriptive information, attitudinal surveys that collect and measure attitudes and opinions of respondents and explanatory surveys that aim to test theories and hypotheses. Questionnaires can be filled in by participants via certain instruments (paper-based, email, online) and asked in a structured and formal way by an interviewer.

To identify, whether customers' perspective of a brand is influenced by digital marketing strategies, an online questionnaire via KwikSurveys was organized by author. The theoretical review assisted with creation of questions. The interface of the questionnaire and examples of the questions can be observed below:

The questionnaire consists of two big parts, excluding the very first question. The first question suggests user to choose the most recognizable brand out of five (Guerlain, Lancôme, Estée Lauder, Yves Saint Laurent, Chanel). The author prepared a survey for each brand with identical questions but related to a particular brand. Therefore, depending on the choice in first question, a respondent was redirected to the page where he or she was asked to evaluate statements connected to four different digital solutions (website performance, email, social media and video) of a brand one indicated in the beginning of survey.

Questions in every part connected to a digital solution were subtly divided into questions linked to brand awareness, perceived quality and brand loyalty in Aaker's view. The level of awareness was measured by the questions that were asking whether the respondent is familiar with the brand website, Facebook group or video, and whether the respondent believes that most people know that such digital solutions of a brand exist. The judgments of respondents concerning perceived quality were measured by questions linked to how attractive interface or pictures were or how easy was to find information. Brand loyalty was observed by questions connected to intentions of participants to return to website, to subscribe to email newsletter and to share posts and videos - combination of Keller's, Smith's and Michel Laroche's approaches (Laroche 2013).

It is important to mention that in order to evaluate different digital marketing solutions, the interactive content was implemented into the survey: respondents were asked to visit official websites, Facebook communities, watch videos and read examples of email newsletters of brands.

Besides, page included six questions examining overall brand awareness, perceived quality and brand loyalty – three general questions before the evaluation of digital solutions and three after. All the questions in this part implied Likert scale, where respondents showed their level of agreement with each statement: one – strongly disagree, two – disagree, three – neither, four – agree and five –strongly agree.

The final part of the questionnaire was about socio-demographic profile of respondents and included general questions that were linked to gender, age and income level of participants. After respondents completed the questionnaire, they were asked for feedback, which was be analyzed by author and was used to make final adjustments. The example of survey can be found in the appendix (appendix 1).

Therefore, the main goal of survey was to observe how three dimensions of brand equity are influenced by knowledge and judgments of consumers about digital marketing solutions of five luxury cosmetic brands.

3.2.2. Justification of the sample and organization of the survey

The amount of observations (answers) for analysis should be at least the number of independent variables in the model multiplied by ten or fifteen (Field 2013). The author chose the social network "Vkontakte" to conduct the survey due to several reasons. Firstly, Vkontakte is the most popular network in Russia, which has more Russian users than other social networks, and the number of users exceeds 380 million (vk.com 2017). Secondly, more than 59% of VK users are older 25, which corresponds to the research needs to gather observations from different generations. The author published questionnaire online on VK, asking friends and colleagues to distribute survey (share the link publicly).

A convenience, snowball sampling was applied in the process of gathering consumer data. This statistical method draws representative data by selecting people because of the ease of their volunteering. The advantages of this type of sampling are the availability and the quickness with which data can be gathered. The final number of observations gathered were 187. After all results were gathered, author performed an analysis of data in IBM SPSS Statistics.

3.3 Data processing

3.3.1. Descriptive statistics

Before moving to descriptive statistics, it is essential to check whether all brands have the same amount of respondents, The crosstab below shows the distribution of participants among five cosmetics brands.

			Brands						
		Guerlain	Lancôme	Estée Lauder	Yves Saint Laurent	Chanel			
Age	17-20	2	6	1	1	3	11		
	21-25	25	27	24	26	26	128		
	26-34	7	5	9	7	10	38		
	>34	2	1	2	2	3	10		
Total		36	39	36	36	42	187		

Table 8. Cross tab for age-brand distribution.

From the table it can be concluded that all five analysed brands have approximately the same amount of respondents with the majority of respondents concentrated between 21 and 34 years old. Such concentration can be explained by the conditions under which a survey was distributed (Vkontakte social network).

Moving to the descriptive statistics for variables covering socio-demographic factors of respondents, author analyses gender, age and perceived income of participants.

Firstly, the sample was observed by gender, and, as it was expected, the women were answering more frequently than men due to the specificity of research were. In general, women are more interested in cosmetics than men are. Besides, women are tend to spend more time surfing on the internet, reading and watching branded content. Therefore, the results of survey proved still existing in Russia gender division: women are more likely to be involved with activities connected to cosmetics than men are. The survey statistics showed that approximately 72% of respondents were female, whereas only 28% were male.

Table 9. Gender distribution of a sample.

	Frequency	Percent
Male	53	28,3
Female	134	71,7
Total	187	100,0

Next figure represents age of participants of the questionnaire. The majority of respondents presented age between 21 and 25 (approximately 57%). These people can be characterized as representatives of millennial generation towards whom luxury cosmetic brands are aiming their digital marketing solutions. Therefore, sample is valid for testing hypotheses. Besides, approximately 36% of respondents are at age between 26 and 35, which represent the wealthiest part of the respondents. They are among people, who represent the oldest part of new generation and can afford luxury cosmetics.

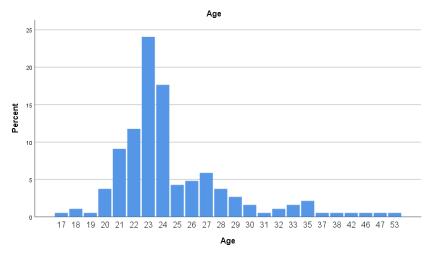


Figure 12. Distribution of sample by age.

The results concerning income distribution represent that over 61% of respondents consider themselves as having an average income, and approximately 31% of respondents indicated that they have an income higher than average, which corresponds to the amount of older respondents (an assumption of author that those respondents have stable source of income). Interesting fact that 8% of respondents indicated themselves as citizens with income below the average. After checking correlation between income and age of respondents, author concluded that people with less than average income were mostly representatives of age between 18 and 21, who are probably fresh students without job.

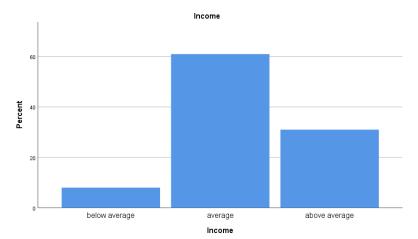


Figure 13. Distribution of sample by income.

In summary, the sample of respondents can be considered as sufficient and satisfactory for the aim of research. The majority of respondents belong to the most digitized part of Russian population, which can be considered as the main target of digital marketing solutions for cosmetic brands. Besides, the majority of respondents indicated themselves as having the average income and above average, which means they can afford the purchase of luxury cosmetic brands. The following paragraph aims to test hypotheses stated in the first chapter.

3.3.2. Hypotheses testing and results interpretation

Primarily, since several questions from the survey were connected to the same latent variables, it was essential to compute new variables containing combined results. In order to understand whether the specific questions in the survey reliably measure the same latent variables, author run a Cronbach's alpha. Cronbach's alpha measures the internal consistency (reliability) of data. The resulting α coefficient of reliability ranges from zero to one in providing this overall assessment of a measure's reliability, where coefficients less than 0.5 are unacceptable. However, for all the questions needed to be combined Cronbach's alpha were more than 0.7 (varying from 0.737 to 0.854) that is considered as reliable. Therefore, the amount of variables were reduced.

It is worth mentioning that there have been long debates on how to treat Likert-scale responses. Many researchers argue that multiple Likert question responses can be treated as interval data (Brown 2011). Therefore, author chose to treat the data from the survey as interval (continuous variables in SPSS), which allows testing hypotheses with linear regression.

Before running regression models, author tested the data for normality and collinearity. Central limit theorem states that when a sample gets large, it is assumed to be normally distributed, therefore, the data gathered from the survey with 187 observations is normally distributed (Stat Trek).

Since the data was considered to be normally distributed, next step was to check predictor variables for multicollinearity in order to exclude high correlation between independent variables in a multiple regression model. This was performed through analysis of Pearson coefficient in SPSS (analyze-correlate-bivariate). There is no common opinion on what level of Pearson coefficient shows that predictors are highly correlated. According to Washington University, if the absolute value of Pearson correlation is greater than 0.7, collinearity is very likely to exist (Washington University 2007). All the predictors showed P<0.7 except for predictors "Facebook PQ"-"Website PQ" where P=0.717. That is why author tested those predictors with variation inflation factor (regression-statistics-collinearity-diagnostics). VIF measures how much the variance of the estimated regression coefficient b_k is "inflated" by the existence of correlation among the k^{th} predictor and the remaining predictor variables, and hence the variance of b_k is not inflated at all. In case with "Facebook PQ"-"Website PQ" the results showed that VIF coefficient equals 2, which can be accepted as low correlation between these two variables that would not affect the results of the regression model.

Mode	1	Collinearity Statistics	
		Tolerance	VIF
1	WebsitePQ	,500	2,000
	VideoPQ	,646	1,549
	EmPQ	,574	1,743
a. Dependent Variable: FacebookPQ			

After proving normality and the absence of multicollinearity in the sample, author run three regression models examining the relationship between different digital solutions and dimensions of customer-based brand equity (brand awareness, perceived quality, brand loyalty). The results are represented below.

H_1 Digital marketing solutions positively influence brand awareness

The regression model that examines influence of digital solutions on brand awareness explains approximately 72% of variance (adjusted R squared = 0.718). Furthermore the analysis is significant because Pearson coefficient is below 0.05 (P=0.002). Therefore, digital marketing solutions affect in some way customers' awareness of a brand. The table below allows making

conclusions on the nature of the relationship between certain digital marketing solutions brand awareness.

Brand awareness is positively influenced by all three digital marketing strategies: website performance, Facebook presence and video marketing. Therefore, sub-hypotheses H_{1a} , H_{1b} , H_{1c} , which state that separate digital marketing solutions positively affect brand awareness, were confirmed.

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		В	Std. Error	Beta		
1	(Constant)	,109	,200		,544	,587
	WebsiteBA	,373	,056	,343	6,714	,000
	FacebookBA	,093	,028	,139	3,346	,001
	VideoBA	,562	,055	,526	10,16	,000
					7	
a. Dep	endent Variable:	GenBA.				

Table 11. Relationship between digital marketing solutions and brand awareness.

From the table can be seen that each of the predictors contributes to brand awareness (P<0.05). Therefore, the regression equation for brand awareness will be following:

Brand awareness = $0,109 + 0,373WebsiteBA + 0,093FacebookBA + 0,562VideoBA + \varepsilon_{it}$ (1.1)

The equation means that if a customer knows about a website of a brand, his or her brand awareness increases by 0,373 (holding all other variables constant). Awareness of a consumer about Facebook official page of a brand increases his/her brand awareness by 0,093, whereas knowledge about branded video content influences customer's awareness most positively (by 0,562).

Thus, the hypothesis H_1 , aimed at identifying the positive relationship between usage of digital marketing solutions and brand awareness, was fully justified. Besides, all three sub-hypotheses, suggesting positive effect of relationship between concrete solutions and overall awareness, were confirmed, which leads to the conclusion that website performance, Facebook and video marketing positively affect overall awareness of consumers about luxury cosmetic brands with the strongest contribution of video marketing.

H_2 Digital marketing solutions positively influence perceived quality

The next model tests how four digital marketing solutions affect quality of luxury brands perceived by customers. Model explains approximately 75% of variance (R squared = 0.753)/ Pearson coefficient tells that the model is statistically significant and there is a relationship between predictor variables and generally perceived quality of a brand. However, from the table below it is observable that different digital solutions contribute to the perceived quality in different ways. Interesting fact that perceived quality of email subscriptions as well as Facebook official page affect overall perceived quality in a negative way.

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		В	Std. Error	Beta		
1	(Constant)	,238	,172		1,389	,167
	WebsitePQ	,378	,061	,353	6,180	,000
	EmPQ	-,281	,046	-,294	-6,131	,000
	VideoPQ	,135	,044	,140	3,059	,003
	FacebookPQ	-,232	,049	-,252	-4,722	,000
a. Dependent Variable: GenPQ						

Table 12. Relationship between digital marketing solutions and perceived quality.

The regression equation for perceived quality is the following:

 $Perceived \ quality = 0,238 + 0,378 WebsitePQ - 0,281 EmailPQ + 0,135 VideoPQ - 0,232 FacebookPQ + \varepsilon_{it} \ (1.2)$

Therefore, causal sub-hypotheses H_{2a} , H_{2c} , were accepted, but sub-hypotheses H_{2b} H_{2d} , claiming that email marketing and Facebook presence have positive affect on perceived quality of luxury brands, were rejected. This leads to a discussion that email subscription can cause harm in the reputation of luxury brands by irrelevant content or not corresponding to luxurious perception design of emails. In case with Facebook presence it may be concluded that Russian consumers prefer using Vkontakte over Facebook as the main social network, that is why the majority of respondents were not satisfied with Facebook official pages, because they were not used to the interface and design of this network.

In summary, perceived quality of website and branded video positively contribute towards perceived quality of a brand, whereas email and Facebook digital solutions influence total perceived quality negatively.

*H*₃. *Digital marketing solutions positively influence brand loyalty.*

The last model examines the influence of digital solutions on brand loyalty and explains approximately 79% of variance (adjusted R squared = 0.790). The model is significant because Pearson coefficient is below 0.05. Therefore, it can be stated that digital marketing solutions affect brand loyalty of customers. The table below allows making conclusions on the nature of the relationship between certain digital marketing solutions brand loyalty.

Model		Unstandardized		Standardized	t	Sig.
		Coeff	ficients	Coefficients		
		В	Std. Error	Beta		
1	(Constant)	,157	,130		1,207	,229
	WebBL.	,306	,046	,306	6,652	,000
	VideoBL	,301	,045	,318	6,658	,000
	EmailBL	,302	,048	,283	6,331	,000
	FacebookBL	,156	,049	,165	3,166	,002
a. Dependent Variable: GenBL						

Table 13. Relationship between digital marketing solutions and brand loyalty.

From the table above it can be seen that website performance, video marketing and email marketing contribute to brand loyalty approximately equal. That means all three solutions are quite effective in transforming consumers into loyal clients. The model suggests small effect of Facebook official page on brand loyalty. It can be explained by the fact that Russian consumers mostly use Vkontakte, however luxury several brands that were tested do not have official page on VK. Regression equation for brand loyalty will look like:

 $Brand\ loyalty =\ 0,157+0,306 WebsiteBL+0,302 EmailPQ+\ 0,301 VideoPQ-0,156 FacebookPQ+\varepsilon_{it}\ (1.3)$

Sub-hypotheses H_{3a} , H_{3b} , H_{3c} , H_{3cd} that identify the effect of concrete digital marketing solutions on brand loyalty were confirmed.

Summarizing all above, results from the regression models proved the majority of hypotheses. Digital marketing solutions positively affect brand awareness and brand loyalty. As for perceived quality of luxury brands, it can be derived that email marketing and Facebook marketing contributes negatively to brand loyalty. In case with Facebook marketing it can be explained by the fact that Russian consumers do not use Facebook as a platform for connection with a brand, therefore presence of a brand on Facebook instead of VK causes negative judgments.

Email marketing, in its turn, can include not relevant information or have unattractive style for respondents.

Additionally, the survey included general questions concerning brand awareness, perceived quality and brand loyalty before evaluating digital solutions and after in order to understand how overall acquaintance with digital solutions affect customer perceptions toward brand. Therefore, to test the difference "before-and-after" experiment author used the paired t-test. This test calculates the difference within each before-and-after pair of measurements, determines the mean of these changes, and reports whether this mean of the differences is statistically significant. The significance value for all three cases was less than 0.05, which proves a statistically significant difference between paired conditions.

		Mean	Mean
			difference
Pair 1	BA before	3,84	-,476
	BA after	4,32	
Pair 2	PQ before	4,07	,364
	PQ after	3,71	
Pair 3	BL before	2,90	-,323
	BL after	3,22	

Table 14. The results of paired samples statistics.

Paired t-test showed that after examining digital marketing solutions consumers became more aware of a brand in general, which is proved by mean difference of 0.476. Same proposition regards brand loyalty: acquaintance of consumers with digital marketing solutions leads to higher brand loyalty. On the contrary, perceived quality of brands decreased after evaluation of digital marketing solutions, which can be also supported by the results of regression model.

In summary, the results of the analysis showed that in general digital marketing solutions positively affect overall brand awareness and brand loyalty of luxury cosmetics brands. However, perceived quality of these brands suffers from some solutions and model shows that consumers' evaluation of luxury brands becomes lower. It leads to a conclusion that luxury brands while pursuing expansion in digital environment might lose some of their luxurious identity, although author considers it as an inevitable part of digitization. Digital availability opens brands to wide audience, hence they seems more affordable to consumers. On the other hand, it might lead to audience conquest from other segments, since digital solutions are engaging.

Returning to the research framework, some adjustments can be made using the results of regression analysis. Overall, model is proved to be satisfactory.

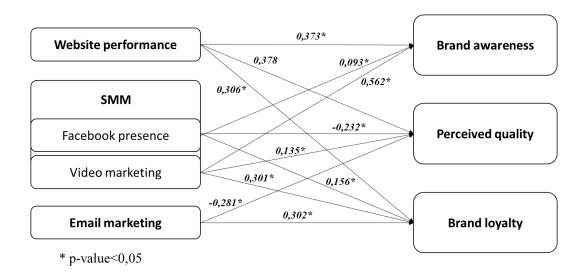


Figure 14. The influence of digital marketing solutions on customer-based brand equity dimensions, results of analysis.

The summarized information about tested hypotheses providing the insight about the effect of website performance, social media marketing, such as Facebook presence and video marketing, and email marketing on brand awareness, perceived quality and brand loyalty - dimensions of customer based brand equity is provided in the table below.

Hypothesis	Measure	Effect
H_1	Website performance	Positive
	Facebook marketing	Positive
	Video marketing	Positive
H_2	Website performance	Positive
	Facebook marketing	Negative
	Video marketing	Positive
	Email marketing	Negative
H ₃	Website performance	Positive
	Facebook marketing	Positive
	Video marketing	Positive
	Email marketing	Positive

Table 15. Summary of tested hypotheses.

In conclusion, the analysis of data showed that all digital marketing solutions, included into the model, showed significant effect on dimensions of customer-based brand equity of luxury cosmetic brands, such as Guerlain, Lancôme, Estée Lauder, Yves Saint Laurent and Chanel. Mostly, digital solutions positively influence overall brand awareness and brand loyalty. However, according to the analysis, perceived quality of luxury brands can decrease due to usage digital marketing solutions such as Facebook presence and email marketing. The following paragraphs includes the discussion of theoretical contribution of this research as well as managerial implications.

3.4 Theoretical contribution, limitations and further research

The implications of the current research allow integrating existing knowledge about brand equity with newly developing theories in digital marketing field. The paper contributes to the sphere of customer-based brand equity and its' relationship with digital marketing solutions of luxury cosmetic brands in Russian market. Theory concerning customer-based brand equity is significantly developed and there are a lot of scientific research in this topic, however there is still little amount of research done in the sphere of digital marketing solutions and their effect of customer-based brand equity dimensions. Therefore, the main implication of this paper is connected to the development of concrete model that tests the nature of relationship between certain digital marketing solutions and brand equity dimensions.

The model was created by author on the base of previous research in both customer-based brand equity and digital marketing field. It tests the influence of website performance, Facebook presence, video marketing and email marketing on brand equity dimensions such as brand awareness, perceives quality and brand loyalty. In this paper, the model was applied to cosmetics industry in Russia, and it proved the effect digital marketing solutions have on dimensions of customer-based brand equity. However, it is important to mention some limitations of the research, which will serve as a direction for further research on this topic.

Firstly, the survey, which was intended to gather consumers' data, was distributed only through Vkontakte social network, whereas different social networks such as Odnoklassniki, Linkedin and Facebook could be involved. Usage of different social networks in the process of gathering data might be useful because it can show the differentiation in behavioral patterns of representatives of different social networks.

Secondly, the research was limited geographically by Saint Petersburg and Leningradskiy Region that might give results different from other regions. For luxurious cosmetic brands it is a good sample because citizens of big cities are tend to spend more. However, for the further research it is suggested to test the model on representatives of different regions.

Third limitation is connected to chosen digital marketing solutions. Author chose them as the most appropriate for the research, but other digital solutions can be also tested by suggested model in the future. Furthermore, in order to better estimate the advantages or disadvantages of specific digital marketing solutions of a brand, future research should include in the conceptual model financial indicators of companies such as sales / volume of Internet sales, or some indicators showing the number of new clients attracted via certain digital marketing solution for the period.

In the end, the research model can be also applied not just for luxury brands, which were chosen for this particular study. The following research can study premium, mass and economy cosmetic brands in order to understand the effect of brand presence in digital environment.

3.5 Managerial implications

The analysis of the research model allows making a number of managerial conclusions about the effect digital marketing solutions have on certain dimensions of customer-based brand equity.

The primary implication addresses the influence certain digital marketing solutions have on brand awareness among consumers, mostly millennial generation. It was proved by analysis that website performance and social media marketing, such as Facebook presence and video marketing positively affect overall brand awareness of luxury cosmetic brands. For marketing managers it indicates the value of these solutions in terms of creation and building of strong customer base. The strongest positive effect turned up from video marketing (concluded from regression model). It means that branded video content drives broader reach due to its engaging and memorable techniques. Therefore, it may be concluded that successful delivery of video content nowadays plays crucial role for luxury cosmetic brands in building brand awareness.

Similarly, it may be concluded that brand loyalty is rising significantly among consumers, who are acquainted with three digital solutions described above as well as with email marketing. Regression model results indicate that website performance, video marketing and email marketing contribute almost equally towards brand loyalty, whereas digital solution such as Facebook presence affects customers' loyalty less significantly. It might be a

consequence of usage Vkontakte as the main social network by the majority of respondents. Thus, having official page in more popular local network might be more beneficial for luxury cosmetic brands. However, it must be said that further research is needed to identify what exact type of loyalty emerges with acquaintance with digital solutions: behavioral or just attitudinal.

Another valuable observation from the study shows that quality of luxurious cosmetic brands perceived by consumers, decreases after the process of acquaintance with digital marketing solutions such as Facebook presence and email marketing. For luxury cosmetics, it might be considered as a possible risk to lose part of the value and identity when brands are using, for example, social media where audience is mixed and everybody can join the community. It is, therefore, advisable to choose the most appropriate digital solutions and develop marketing strategies in a way that allows preserving luxurious identity and at the same time increasing brand awareness and loyal customer base.

In conclusion, the information from the research by itself can be useful for the marketing managers in order for them to understand the behavioral digital habits of millennial generation, and how they can be affected by specific digital marketing solutions.

CONCLUSION

The research paper fills in the research gap concerning the effect of certain digital marketing solutions on dimensions of customer-based brand equity. In order to achieve this goal, the number of research objectives were indicated, and all of them were successfully achieved.

The theoretical review showed that there has been an extensive research on customer-based brand equity and a lot of scattered research on digital marketing solutions, but there is still an ongoing debate on how digital marketing solutions influence customer-based brand equity. It allowed the author to suggest research hypotheses and research model that tests the nature of relationship between certain digital marketing solutions and dimensions of customer-based brand equity.

Similarly, the cosmetic industry was analyzed and confirmed the assumption that digital marketing is taking over the main portion of marketing strategies. Cosmetic brands are pursuing different digital marketing solutions in order to attract new customers and to stay connected to loyal ones. Therefore, it verifies the purpose of study to analyze the effect of those solutions.

After the data were collected and analyzed, the theoretical and managerial implications were made confirming that research model suggested by the author is working and can test the nature of relationship between certain digital marketing solutions and dimensions of customerbased brand equity.

The research revealed that both brand awareness and brand loyalty of luxury cosmetics are positively affected by digital solutions such as website performance, social media marketing (Facebook presence and video marketing) and email marketing. It also showed that perceived quality of luxury cosmetic brands is positively affected by website performance and video marketing, but negatively influenced by email marketing and Facebook presence.

In conclusion, the paper represents an important contribution to further research in the field of digital marketing and customer-based brand equity, which will help to disclose the valuable information to marketing specialists about digital marketing solutions such as website performance, social media marketing (Facebook presence and video marketing) and email marketing.

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APPENDIX

Appendix 1. The example of survey

Исследование капитала бренда

Добрый день! Я студентка магистратуры Высшей Школы Менеджмента СПбГУ и в данный момент пишу диссертацию на тему "Влияние цифровых стратегий на капитал потребительского бренда на рынке косметики в России". В связи с чем прошу Вас заполнить небольшой опрос. Заранее спасибо!



Graduate School of Management

St. Petersburg State University

* Пожалуйста, укажите наиболее знакомый Вам бренд:



Цифровая стратегия Guerlain

Вам будет предложено оценить утверждения, связанные со стратегиями бренда.

Общие вопросы

*	Я много слышал(а) о ко	осметике Guerlain				
		Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
*	Косметика Guerlain каче	ественная				
		Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
*	Guerlain - мой первый в	ыбор при покупке косм	етики			
		Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
Be	бсайт					
×	Я уверен(а), что Guerla	in имеет собственный в	зебсайт на русс	ском языке		
		Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
*	Мне знаком с русскоязь	ичным вебсайтом Guer	lain			
		Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
*	Пожалуйста, посетите с	сайт <u>Guerlain.ru </u> и оцени	ите следующие	утверждения:		
	Сайт Guerlain эстетиче	ски красив				
		Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
*	Информация, представ	ленная на сайте, актуа	льна и подчёрк	кивает качество бренд	a Guerlain	
		Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен

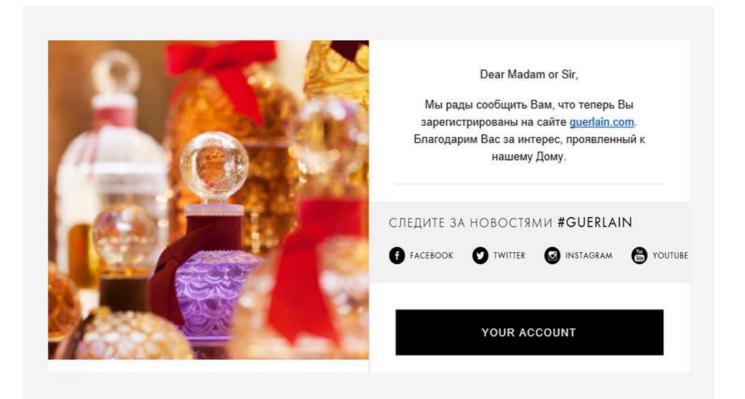
* После посещения сайта у меня не возникает желания возвращаться туда.

Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен

Email-маркетинг

Пожалуйста, посмотрите пример рассылки оцените следующие утверждения:

GUERLAIN



*	Информация,	содержащаяся в	рассылке,	подчёркивает	качество	бренда	Guerlain

	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
* Я бы участвовал(а) в а	акциях, конкурсах, програ	амме лояльнос	ти через рассылку Gu	erlain	
	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
* Я готов(а) подписаться	я на рассылку Guerlain				
	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
социальные сети					
* Мне знакома официал	ьная группа в Guerlain в	Facebook			
	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
* Многие люди знают и о	состоят в официальной	группе Guerlair	в Facebook		
	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
 Пожалуйста, посетите оцените следующие ут 		uerlain <u>https://w</u>	ww.facebook.com/Guer	lainRussia/?l	<u>orand_red</u> и
оцените следующие ут				<u>lainRussia/?l</u>	brand_redи
оцените следующие ут	гверждения:			<mark>lainRussia/?l</mark> Согласен	orand_redи Полностью согласен
оцените следующие ут	гверждения: вленная в группе, отраж	ает ценности б	іренда Guerlain		
оцените следующие ут Информация, предста	гверждения: вленная в группе, отраж	ает ценности б Не согласен	іренда Guerlain		
оцените следующие ут Информация, предста	гверждения: вленная в группе, отраж Полностью не согласен	ает ценности б Не согласен	іренда Guerlain		

* Я бы поделился (ась) постами/фото данной группы на своей странице

	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
Видео					
* Я уверен(а), что Guerla	in имеет свои видеорол	ики в интернет	e		
	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
* Я знаком(а) с видеорол	пиками Guerlain				
	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен
ожалуйста, посмотрите данный ви	деоролик и оцените следующи	е утверждения:			

http://www.youtube.com/watch/https://www.youtube.com/watch?v=A0O6g4LZaQI

* У меня возникло желание досмотреть ролик до конца

Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностью согласен

*	Видео вызывает у меня только полож	кительные эмоці	ИИ			
	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностьк	о согласен
*	Просмотр видеоролика вызывает у м	еня желание по	делиться им с друзья	МИ		
	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностьк	о согласен
*	После просмотра видео я захотел(а)					
	Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностьк	о согласен
*	бщие вопросы (2) Я хорошо осведомлен(а) о косметике Полностью не согласен	е Guerlain Не согласен	Затрудняюсь ответить	Согласен	Полностьк	о согласен
*	Косметика Guerlain соответствует саг Полностью не согласен	мым высоким ста Не согласен	андартам Затрудняюсь ответить	Согласен	Полностьк	о согласен
		E				
*	Я готов(а) рекомендовать Guerlain др	-			_	
*	Я готов(а) рекомендовать Guerlain др Полностью не согласен	Не согласен	Затрудняюсь ответить	Согласен	Полностьк	о согласен

Appendix 2. Hypotheses, survey questions, variables

H_1 Digital marketing solutions positively in	afluence brand awareness. (Bruhn, 2012; Brunello, 2014)	
Sub-hypotheses	Questions from the survey	Variable in regression model
<i>H</i> _{1a} Website performance marketing	I am sure that brand X has its own website on the Internet.	WebsiteBA
positively influences brand awareness.	I am familiar with the Russian website of brand X.	
H_{1b} Brand presence on Facebook	I am aware that brand X has its own Facebook page	FacebookBA
positively influences brand awareness.	Many people know and appear to be participants of Facebook page of	
	brand X	
H_{Ic} Video marketing positively	I am sure that brand X has its own video content	VideoBA
influences brand awareness.	I am familiar with video content of brand X	
H_2 Digital marketing solutions positively in	nfluence perceived quality. (Bruhn, Schoenmueller and Schäfer 2012)	
<i>H</i> _{2a} Website performance marketing	The website of brand X looks aesthetically beautiful.	WebsitePQ
positively influences perceived quality.	The information on the website is relevant and highlights the quality of	
	brand X.	
H_{2b} Brand presence on Facebook	The information, presented on the official Facebook page of brand X	FacebookPQ
positively influences perceived quality.	reflects value of brand X	
H_{2c} Video marketing positively	I wanted to finish watching video of brand X	VideoPQ
influences perceived quality.	Video of brand X causes only positive emotions	
<i>H</i> _{2d} Email marketing positively	The information, presented in the email subscription of brand X reflects	EmailPQ
influences perceived quality.	quality of brand X	
	<i>ifluence brand loyalty.</i> (Khan, 2015; Pourdeghan, 2015)	
H_{3a} Website performance marketing	After visiting website I do not have a wish to return there (inverted)	WebsiteBL
positively influences brand loyalty.		
H_{3b} Brand presence on Facebook	I would actively follow the news of official Facebook page of brand X	FacebookBL
positively influences brand loyalty.	I would share photos and posts of brand X with my friends	
H_{3c} Video marketing positively influences	After watching video of brand X I want to subscribe to its' channel	VideoBL
brand loyalty.	I would like to share video of brand X with my friends	
H_{3d} Email marketing positively	I would participate in different contests of brand X from its subscription	EmailBL
influences brand loyalty.	I would like to subscribe to email subscription of brand X	