

What works and what doesn't in social media for university recruitment

Master Thesis for Obtaining the Degree
Master of Science in
Management

Submitted to Kristof Tomej, PhD

Diana Palnychenko
1321010

Vienna, 9th June 2019

Affidavit

I hereby affirm that this Master's Thesis represents my own written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or paraphrased from these sources are properly cited and attributed.

The thesis was not submitted in the same or in a substantially similar version, not even partially, to another examination board and was not published elsewhere.

Date: _____

Signature: _____

Abstract

In the age of the digitalization, the power of influence of the various social media channels on the consumer decision-making process is changing the marketing world. Simultaneously, the educational marketing is shifting to the path of social media advertising in order to reach the target audience and increase engagement. This thesis aims to investigate the effect of the social media communications of universities on the perception of prospective students and their consumer behaviour. The previous research on the use of the social media in the university recruitment generates strong theoretical evidence; nevertheless, the precise focus on the customer-centric experimental approach to analysing the influence of the different types of social media content creates the novelty of the thesis. The necessary mock-up content for the experiment is generated through the personal interviews with the potential graduate applicants in the form of customer journey mapping. Furthermore, the content is created and randomly distributed to the larger sample of the target audience representatives with the aim of measuring the emerged emotions. Through the further linking of the major steps of the university recruiting to the emotions affecting this process, the research results indicate the influence of the specific social media content on the prospective student. The findings of the thesis can be successfully implemented in the university marketing strategy and facilitate the recruiting process.

Acknowledgements

First and foremost, I would like to thank my thesis supervisor Dr. Kristof Tomej for his constant support and motivation, encouragement and helpful advice. Without his valuable assistance and extensive experience, the completion of this thesis would not have been possible.

I would also like to thank Mr. Lashchuk for his generous patience and support during my studies and my best friend Jessica for being there for me.

Most importantly, I would like to express my deepest gratitude to my parents, Igor and Liudmyla, and my sisters, Olya and Julie, for always believing in me and being my biggest source of inspiration.

Table of Contents

Affidavit

Abstract	2
Acknowledgements	3
Table of Contents	4
List of Figures	7
List of Tables.....	8
List of Abbreviations.....	8
1. Introduction	9
2. Literature Review	11
2.1. University Recruitment	12
2.2. Social Media Marketing and University Recruitment	15
2.3. Digital Consumer Behaviour and Content Marketing	19
2.4. Emotions	22
2.4.1. Emotions and Consumer Behaviour	23
2.4.2. Measuring Emotions	25
2.5. Brand Intimacy	27
2.6. Summary of the literature review.....	29
3. Methodology	30
3.1. Target Audience	31
3.2. Customer Journey Mapping	32
3.2.1. Sampling	32
3.2.2. Semi-Structured Interviews.....	33
3.2.3. Designing Customer Journey Maps	34
3.3. Experimental Design	36

3.3.1. Participants of the Experiment	36
3.3.2. Instrumentation and Materials	38
3.3.3. Variables of the Experiment	38
4. Qualitative Findings	38
4.1. Emotions	39
4.2. Actions	40
4.3. Thoughts	41
4.4. Communication and Social Media	42
4.5. Moments of Truth	44
4.6. Pain Points	44
4.7. Qualitative results.....	45
5. Execution of Experiment	46
5.1. Hypotheses Development.....	46
5.2. Experimental Procedure	48
6. Quantitative Findings	52
6.1. Descriptive Data Analysis: Demographic Data	52
6.2. Descriptive Data Analysis: Pre-Test	54
6.3. Descriptive Data Analysis: Post-Tests	56
6.3.1. Treatment Group 1	56
6.3.2. Treatment Group 2	57
6.4. Hypotheses Testing	59
6.4.1. Correlation Testing	59
6.4.2. Secondary Hypotheses Testing	62
6.5. Quantitative Results and Conclusion	67

7. Discussion of the Results	70
7.1. Interpretation of the Results	70
7.1.1. Research Sub-Questions	70
7.1.1.1. Research Sub-Question 1: What is a potential graduate student's typical customer journey for university selection? (Method: Customer Journey Mapping) ..	70
7.1.1.2. Research Sub-Question 2: When and how do social media communications intervene in the university selection process? (Method: Customer Journey Mapping).....	71
7.1.1.3. Research Sub-Question 3: What effects does social media content have on the emotions of the potential graduate? (Methods: Customer Journey Mapping and Experimental Research)	72
7.1.1.4. Research Sub-Question 4: How does social media content influence emotions of the potential graduate students and, consequently, their likelihood of application to the university?).....	74
7.1.2. Main Research Question	75
7.2. Recommendations	76
7.3. Limitations and Future Research	77
7.3.1.Limitations	77
7.1.2. Future Research	78
8. Bibliography	80
Appendices	89

List of Figures

Figure 1: Conceptual model of the study	11
Figure 2: Distribution of Instagram users worldwide as of January 2019, by age and gender (Source: Statista, 2019)	18
Figure 3: Geneva Emotions Wheel (Source: Scherer, 2005)	26
Figure 4: Plutchik's Wheel of Emotions (Source: Plutchik, 1980)	27
Figure 5: Persona Portfolio of the Customer Journey Map participants.....	33
Figure 6: Example - Customer Journey Map of the Respondent 5.	36
Figure 7: Online channels (Social Media and Official Website) – Customer Journey Maps.....	42
Figure 8: Moments of Truth – Customer Journey Maps.....	44
Figure 9: Pain Points – Customer Journey Maps	44
Figure 10: Emotions measured in the experiment.....	49
Figure 11: Treatment 1. Instagram post displayed for the Group 1.	50
Figure 12: Treatment 2. Instagram post displayed for the Group 2.	51
Figure 13: Gender distribution of the respondents	52
Figure 14: Age distribution of the respondents	53
Figure 15: Highest level of education completed by the respondents	53
Figure 16: Distribution of the participants to two treatment groups	54
Figure 17: Emotions felt during the pre-test	55
Figure 18: Likelihood of the application to the university in the pre-test	55
Figure 19: Emotions felt during the post-test (Treatment group 1)	56
Figure 20: Likelihood of the application to the university in the post-test (Treatment group 1)	57
Figure 21: Emotions felt during the post-test (Treatment group 2)	58
Figure 22: Likelihood of the application to the university in the post-test (Treatment group 2)	58

List of Tables

Table 1: Social Media Demographics (Source: Social Audience Guide – Spreadfast, 2018)	18
Table 2: Emotions related to the choice of university. (Source: Sims, 2014).....	25
Table 3: Emotions – Customer Journey Maps.....	39
Table 4: Actions – Customer Journey Maps.	40
Table 5: Thoughts – Customer Journey Maps.	41
Table 6: Communication – Customer Journey Maps	43
Table 7: Correlation between likelihood to apply and anticipation	60
Table 8: Correlation between likelihood to apply and joy.....	60
Table 9: Correlation between likelihood to apply and trust.....	61
Table 10: Kolmogorow-Smirnow test, Anticipation variable.....	63
Table 11: Comparison of 8 tested emotions: pre-test and post-test (Treatment 1 application).....	63
Table 12: Comparison of 8 tested emotions: pre-test and post-test (Treatment 1 application).....	65
Table 13: Comparison of likelihood to apply in the pre-test and post-test (Treatment 1).....	66
Table 14: Comparison of likelihood to apply in the pre-test and post-test (Treatment 2).....	67

List of Abbreviations

1. CJM = Customer Journey Mapping
2. CRM = Customer Relationship Management System
3. CSM = Content Relationship Management System
4. SMOT = Second Moment of Truth
5. T1 = Treatment 1
6. T2 = Treatment 2
7. WoM = Word-of-Mouth
8. ZMOT = Zero Moment of Truth

1. Introduction

In line with global trends of digitalization, educational marketing is embracing social media as a primary communications tool for recruiting students and increasing engagement with target audiences. The main purpose of this research is to investigate the effect of the social media communications of universities on the perceptions of the prospective graduate. Nowadays it is highly important to understand what is the most effective way to attract potential students through the use of social media channels in order to improve the recruitment process. Moreover, it is essential to explore which social media content, on the contrary, does not create any impact in terms of recruiting the prospective applicant.

The strong potential for the future investigation on the chosen topic is created by the research gap. According to Rutter, Ropper, and Lettice (2016), the use of social media improves brand performance in terms of university recruitment. Nevertheless, the influence of the various social media content on the customer journey of the prospective student has not been analyzed yet. To illustrate, Khatri et al (2015) conducted a study on the development of the new multi-format social media model for the university recruitment, however, the in-depth description of the content that would positively impact perception of the potential applicant is not provided in the research. Thus, it can be stated that previous research on the use of social media in university recruitment has generated a strong theoretical background, yet this thesis follows a novel customer-centric experimental approach to analyzing of selected formats of social media content.

The main research question of the study is:

“How do social media communications of universities affect the impressions of prospective graduate students about the university?”

The area of the research will be extended by the list of sub-questions that will be subsequently listed in the methodology section. In order to perform the complex and diversified analysis, two different methods will be

employed chronologically: personalized interviews with the customer-journey mapping and the experimental design. Thus, the researcher uses *exploratory sequential mixed methods* in this study by building the quantitative data collection during the experiment on the results of the qualitative research (Creswell, 2014).

The advantages of carrying the study are that the findings of the study can be successfully implemented in university marketing strategies and facilitate the recruiting process. Continuous observation of the social media channels of various universities led the researcher to the assumption that the content is mostly generated through trial and error by virtue of the lack of the structured guidelines on the content management.

The composition of this study begin with introduction, followed by the literature review, which presents an analysis of previous research findings with the aim to deepen the understanding of the research question and to enhance its development, as well as to discover both methodological and theoretical contributions to the topic of the research. The research examines concepts such as university recruitment, social media marketing, digital consumer behaviour, content marketing, emotions, and brand intimacy in the literature review. The literature review is followed by the methodology section that provides a description of the qualitative and quantitative analysis as well as detailed overview of the experimental design. Consequently, the study continues with the qualitative findings, where the researcher discusses the results of the customer journey mapping, which served as a basis for the next section – execution of experiment. The outcomes of the experiment and hypotheses testing are further presented in quantitative findings. Consequently, the discussion of the results, recommendations and limitations will be presented in the study.

2. Literature Review

The literature review of this study is based on two major fundamental segments: university recruitment and social media marketing. These concepts are underlying the main topic of the research and, thereby, the investigation of published literature constructs a basis for the future primary investigation – an experimental design. The literature review includes the analysis of the interconnection between university recruitment and social media marketing, which has been explored in previous research. Furthermore, the author investigates the interdependence of emotions with the university recruitment and social media marketing to understand the sentiment of social media content that can improve the customer journey of the potential applicant and, hence, enhance the recruitment process. The concepts of digital consumer behaviour and content marketing are applied to the university recruitment process to strengthen the comprehensive understanding of the identified problem of the study. Last but not least, the concept of brand intimacy as well as its impact on the university marketing and recruitment is examined (See Figure 1).

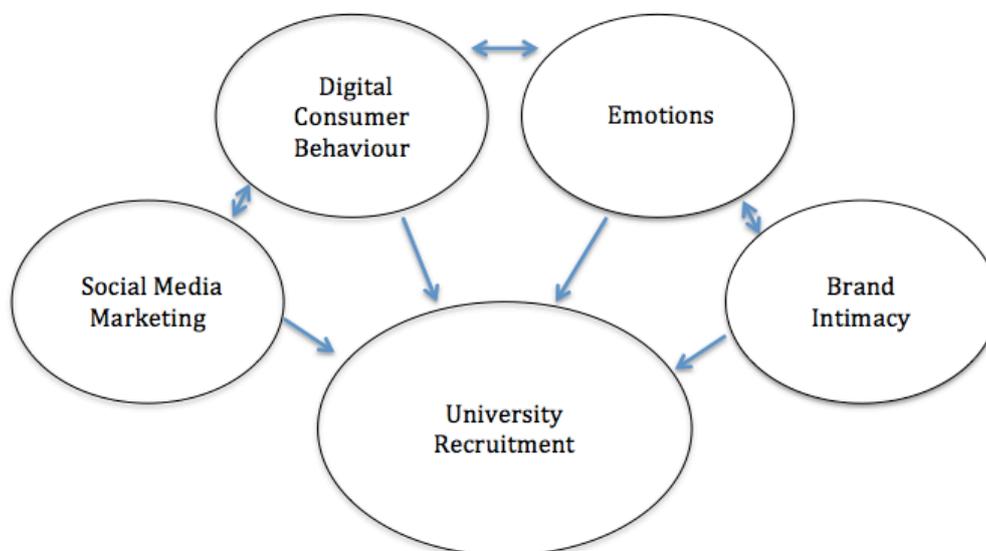


Figure 1: Conceptual model of the study

2.1. University recruitment

University recruitment – also called student recruitment – is a set of the activities and strategies performed by universities with the aim to attract new applicants (Haverling College, 2019). According to Johnston (2010), with the growing number of the higher education institutions, student recruitment remains to be a challenging task for the universities.

The race of the student recruitment market causes the modifications and improvements in the recruitment methods. Even though, the promotion of the university is just a part of the comprehensive marketing mix, knowing other important aspects of the choice of potential applicant can help to build an effective marketing campaign (Sigler, 2018). Eliot and Healy (2001) noted that identifying aspects of an educational experience that students consider to be of the highest level of importance is necessary in order to create a successful recruitment strategy. These aspects would comprise the ‘criteria students would seemingly use when evaluating universities during the process of selecting a university to attend’.

One of the first systematic studies on this topic was carried out by Beswick in 1989, where the author compared the results of the survey conducted among 227 first-year students of the three universities in Alberta. In the findings, the author stated that the main factors influencing students’ choice differed depending on the university. To illustrate, students of the University of Alberta valued the reputation of the institution and program, variety of programs offered and proximity to home, whereas students of the smaller universities – Camrose Lutheran College and University of Lethbridge – highlighted low student/professor ratio, low student population and reputation of the university as the most influential factors. Later, Anderson (1999) conducted the research on this topic through the distribution of the questionnaire survey in the University of Plymouth as well as focus group research. The author concluded that the three most significant aspects for the decision-making of the applicant are the course content, location of the university and social life. Comparing two studies, it can be said that the discrepancies in the findings might be present due to the differences in the sizes and locations of universities, where the surveys were

conducted. Also, the variance in the age of the participants might lead to dissimilar results, as the study of Anderson included the focus groups, which were conducted in schools, whereas the participants of the research of Beswick were the first-year university students.

However, a recent view of the literature on this topic found that the main factors contributing to the choice of university are learning environment, job prospects and student life (Agrey and Lampadan, 2014). These findings were supported in other studies by Rudhumbu (2017) and Rocha (2018). The discrepancy in the results of the researches can be caused by the difference in time and location of conducting the study, diversity of societal trends and the generation gap. Nevertheless, the potential employment opportunity and variety of programs remain to be among the main aspects for the applicant.

A key problem with much of the literature on the factors influencing choice of the university is that the authors do not mention all of the important criteria in their surveys and, therefore, even though the importance of the several factors is highlighted, other aspects (factors) are not being considered. To illustrate, the qualitative research of Kusumawati (2013) implied that most of the students mention cost of the program as the most important factor for the university choice, yet it was not previously considered in the discussed literature. Moreover, Kusumawati stated that parents' influence is one of the main stimuli for the decision-making process of the student. Nevertheless, it is difficult to understand whether one of the parents makes more significant contribution to the choice of their child, or both of them have the same power of influence, as students did not mention this information. In addition, the parents' influence is not limited to financial opportunities but also plays a vital role in the encouragement of the child and his/her aspirations for the future job.

A study of Eliot and Healy (2001) on the key factors influencing student satisfaction related to recruitment and retention revealed results of the research that identify the mean importance scores of the various aspects of an educational experience.

Authors suggested that universities should focus on the aspects that have the highest importance score among students in their recruitment practices. Moreover, the aspects communicated for the purpose of the retention of the students should not be the same as for the purpose of the recruitment. Eliot and Healy state that the main limitation of this study is the existence of the factors that were not included in the research, such as price and rating of the university, which were also mentioned to be seemingly important for the potential student. Another important aspect is the influence of the family income and even fathers' education that are considered to be directly connected to the selection process of the potential applicant, as lower income families would rank 'price' as the factor with the higher importance level comparing to the higher income families.

Sigler (2018) highlights fundamentals for the successful student recruitment. The author stated that to reach the effective and efficient communication with the potential students, it is important to be highly accurate in targeting right markets in the right periods of time, communicating appropriate messages through the use of the most suitable channels. It is also mentioned that setting posteriorities as well as priorities is the part of the winning strategy to the university recruitment process. Identified by Drucker (2016), posteriorities have a meaning opposite to priorities, and imply the tasks and goals that should not be pursued. Thus, the student recruitment strategy should rather be focused on the future plan and eliminate inefficient tactics used in the past.

Hanover Research consultancy (2014), based on approximately 1000 higher education research projects, has published a report identifying the overall trends in the student recruitment and marketing of the universities:

- 1. Responsive website design:** focus on the website design and usability for different view options (standard and mobile) and devices to increase satisfaction of the user
- 2. SEO (Search Engine Optimization):** maximizing number of the website visitors by improving the placement of the page in the list of the search engine (e.g. Google)

3. **Web Analytics:** identifying the website audience through the use of various web analytics tools to understand how and where users can be reached
4. **Strategic Social Media:** nearly every university is currently using at least one social media channel. However, simply establishing social media presence is often not enough to succeed due to the fact that it is also highly important to develop strategies for different social media accounts in order to perform consistently and efficiently
5. **Mobile development:** mobile-friendly content (mentioned above)
6. **Content and customer relationship management systems (CSM and CRM)**

The report states that ‘perhaps the largest area of innovation and growth in higher education marketing and branding, as well as in recruitment, is in the online and digital space’. Findings on the importance and effectiveness of the strategic use of social media for the purposes of student recruitment are discussed in the following section.

2.2. Social Media Marketing and University Recruitment

The global shift towards the digital media also affects the university recruitment by changing traditional marketing channels to the social networks. Thus, the decision-making process of the student is influenced by the novel media sources. Shahid et al (2012) identified marketing methods for the university recruitment and, consequently, claim that Word-of-Mouth is still the most effective way to recruit students. Moreover, the author states that the role of social media marketing for the university recruitment is not significant, however, it is only mentioned to be a case if the university is already well known. Nevertheless, Saravanakumar (2012) claimed that ‘new web technology has made it simple for anyone to create and most highly, issue their own content’. By that, it can be seen that the linkage between the

effective WoM and social media marketing is visible – the user is not only able to comment or repost the content of the organization but also to create own content that might have an influence on the decision of the potential customer. Kumar and Mirhandani (2012) suggested that social media is a powerful tool to generate positive and sustainable WOM. It is also supported in the book of Evans (2010), where the author states that ‘social media is participative: the ‘audience’ is assumed to be part of the creative processes’. The possibility of participation and engagement is particularly attractive for the youth, well adapted to social media and technological advancements (Greenhow, 2011).

The effectiveness of social media for university recruitment has been critically discussed in the literature. The study of Constantinides and Zinck Stagno (2011) implied that the traditional forms of university marketing create more impact on the recruitment comparing to the social media marketing. On the contrary, Rutter and Ropper (2016) stated that the social media can create an early sense of belonging to the university, which can, in turn, result in loyalty and increase the chance of applying. Moreover, the authors concluded that, nowadays, potential students expect fast and direct interaction with the university that can be easily established with the help of social media. In the Guide for Professionals in Higher Education (the independent study project), Reuben (2008) noted that one of the biggest advantages of social media use in university marketing is the ability to ‘humanize stories of students and alumni’ that leads to the customer loyalty of the potential applicant. Similarly, Noel-Levitz (2007) outlined that using social media for the student recruitment could be beneficial, nevertheless, the author stated that the main focus should still be made on the official website of the university as the potential students tend to obtain most information using this resource. However, it has to be considered that the study of Noel-Levitz was conducted in 2007 and the social sources that were compared to the official website, such as MySpace and blogs, are currently outdated. Thus, the limitation of this study is in the lack of relevance.

The research of Fagerstrom and Ghinea (2013) concluded that use of social media channels enhance efficiency of universities' recruitment campaigns by providing an arena for value creation and co-creation of the experience together with potential applicants. Additionally, the results of the recent study of Clark et al (2017) show that the perceived quality of the university by students is enhanced by the social media presence of the university. It is also stated that the social media presence itself does not necessarily lead to the interaction with the student and engagement, thus, the social media strategy should be developed by the university marketers in order to implement successful relationship with the potential applicant or current student on social media channels. 2017 Digital Marketing Analytics Performance Report by TrackMaven, created on the basis of the 12-months data on the digital marketing effectiveness from about 700 brands representing various industries, claimed: 'Higher education institutions saw the highest social media follower growth across the social media landscape in 2016, with 77 percent annual follower growth on average'. This fact might potentially support the idea of the efficiency of the social media marketing for the recruitment purposes; however, the report did not mention any factual information on the increased conversion rate (in this case, applications to the university).

Another critical point for the successful social media marketing campaign is a correct choice of the channel for the communication with the potential student. It is important to compare the demographics and target audience, identify the benefits of the channel as well as the budget for each of the channels (Social Media Today, 2018). Pew Research Center (2018) has published the demographics report on social media use in 2018 that claimed that young adults in the age of 18-29 spend most of the time using Instagram and Snapchat, even though the majority of the respondents use Facebook and YouTube. This information is supported also in the statistics published by Statista (2019) that shows that the majority of the active users of Instagram are between the ages of 18 and 34 (See Figure 2)

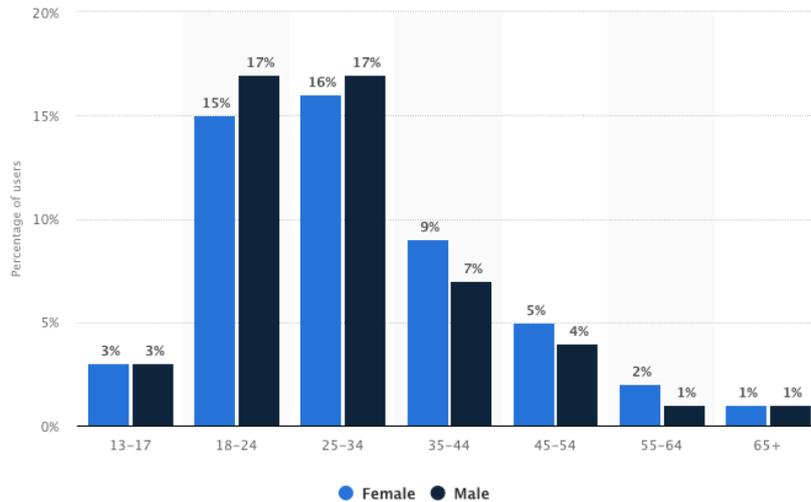


Figure 2: Distribution of Instagram users worldwide as of January 2019, by age and gender (Source: Statista, 2019)

The most intensive growth is visible on Instagram – in 2016 the platform was used by 26% of adults, whereas in 2018 the number increased to 35% (Marketing Charts, 2018). It is also supported in the report of Singhal (2018), where Instagram is stated to be the main influential social channel on the rise for the purposes of marketing of the graduate programs. The 2018 Social Audience Guide (Spreadfast, 2018) identified the demographics for the main social media channels (See Table 1).

Social Network	Users of age 18-29	Average time spent	Monthly Active Users (millions)
Facebook	88%	35 min/day	2 Billion
Instagram	59%	15 min/day	800 Million
LinkedIn	36%	17 min/visit	106 Million

Table 1: Social Media Demographics (Source: Social Audience Guide – Spreadfast, 2018)

It is also stated in the report that the best choice in order to reach Millennials is to combine the presence on Instagram and Facebook. Another important finding is the fact that Instagram has the highest engagement rate comparing to other channels. Thus, it can be considered as the best platform for social interaction. Moreover, 80% of Instagram users are following business profiles (Socialnomics, 2018).

Khatri et al (2015) have emphasized that Twitter, YouTube, and Facebook are the most suitable networks to communicate the message to potential students. The research has developed a practical model for developing a strategy for these social media channels. The suggested model describes a step-by-step approach to utilize Twitter, Facebook, and YouTube for university recruitment. It has to be highlighted that the content and interaction with the potential student differs depending on the social media channel, its purpose, design, and needs of the target audience. Thus, Twitter is used mainly for the purposes of raising awareness and publicity, whereas Facebook and YouTube are more suitable for sharing useful content in text and video formats. Nevertheless, regardless of the social network, communication with the customer should be constant, fast and personalized.

On the contrary, 2018 Social Media Benchmark Report (Rival IQ, 2018) analysed the current state of higher education industry on social media, and stated that Instagram remains to be the dominating social media channel for the higher education segment with the engagement rate of 3.39% per post. Simultaneously, the engagement rate has decreased to 0.19% on Facebook. The fact of Instagram's increasing engagement was previously supported by the statistics published by Marketing Insider Group (2017) that stated that 'this network crushes the other social media platforms when it comes to social media engagement in every industry'.

It has to be mentioned that average Instagram engagement rate of the higher education industry is the currently the highest among all industries (See Figure 5). Furthermore, the report highlights that the most engagement on Instagram is driven by such post types as photos and videos or carousel posts (combination of multiple images and/or videos in one post).

2.3. Digital Consumer Behaviour and Content Marketing.

The topic of digital consumer behaviour should be discussed in this research as it identifies the needs and wants of the consumer on the digital arena and deepens an understanding of the purchase decision made online.

Edelman and Singer (2015) have created a framework for the new customer decision journey that is composed of five main steps: awareness, familiarity, consideration, purchase, and loyalty. However, the stages of the customer decision journey may slightly vary depending on the industry and specifics of the product or service. In this research, it is important to understand how the potential graduate can be influenced by the social media content to proceed to the 'purchase' phase, which in this case would be the application to the university.

Study of Ashman et al (2015) concluded that the traditional decision-making model of Engel, Kollatt and Blackwell (1968) is still applicable in the era of digital culture, however, some minor corrections are needed. The authors have highlighted following implications of digitalization on Engel, Kollatt and Blackwell model:

1. **Need recognition:** on the online marketplace, the problem recognition face is often triggered by other consumers and not by marketers
2. **Information search:** accumulated social capital shifts the trust from traditional sources to non-professional and WOM.
3. **Evaluation of alternatives:** reviews and live chats influence the choice between alternative options
4. **Purchase:** possibility of purchase through social media and other online channels is changing the dynamics of this stage
5. **Post-purchase:** opportunity for social participation and creation of the user-generated content

Another important concept that has to be analyzed in this study as it has a direct impact on the effectiveness of social media marketing is content marketing. Rowley (2008) has provided a definition of the digital content marketing: 'Digital content marketing is the management process responsible for identifying, anticipating, and satisfying customer requirements profitably in the context of digital content, or bit-based objects distributed through electronic channels'. This sub-topic is of a high

importance for the present research as it creates a basis for the creation of the customer journey maps and, consequently, mock-up social media content.

The research of the Content Marketing Institute (2018) claimed that organizations should manage their content strategically and view it as a business asset that will create a value over time. Moreover, the survey conducted by the CMI says that only 12% of the marketers consider their efforts on the content management to be successful. Therefore, this fact proves the significance of knowledge on the effective social media content for the university recruiters.

Jaakonmäki et al (2017) investigated the impact of the content features on the engagement and conclude that images containing people, scenery and emojis (emoticons, pictorial representations of emotions (Cambridge Dictionary, 2019)) with a positive sentiment increase the engagement on the page. Digital Marketing Institute (2019) has analysed the case studies of social media channels of 5 different universities in the United States as examples of successful content campaigns. Following five content marketing strategies were implemented by the educators: influencer marketing, microsite, Snapchat marketing, videos and user-generated content. According to the research of the digital marketing agency Single Grain (2019), students tend to be more influenced by intangible elements mentioned by marketers in social media content of the university (e.g. learning environment, traditions, students) than tangible (e.g. university rank). Furthermore, Single Grain agency conducted the case study analysis of the content marketing of by Stanford University that showed that motivational content, for instance, alumni success stories and inspiring quotes, is preferred by the potential applicants. Another case study of Concordia University Irvine revealed that emotional and personal content, such as video story about one of the professors and his way of teaching students, is performing successfully on social media channels of the university.

2.4. Emotions

Bagozzi et al (1999) defined emotions as ‘a mental state of readiness that arises from cognitive appraisals of events or thoughts’ and state that major difference between emotions and moods is that the moods are lasting longer and are lower in intensity comparing to emotions. Moreover, the authors supported the fact that emotions play a crucial role in marketing.

According to Kahneman (2011), consumers have two systems of thinking – System 1, responsible for the automatic and unconscious thinking, and System 2 that is in the charge of the effortful mental activities. As the choice of the university is a rare life event that requires complex analysis and special attention, it might be logical to attribute the complete process of decision making in this case to the System 2. However, Kahneman mentioned that System 1 operates automatically and originates feelings and impressions that are further used as the basis for the construction of the series of steps by System 2. Thus, the emotions and feelings occurring during the consumer journey can significantly influence the customer decision-making process.

Scherer (2001) classifies emotions defining the Emotional Response Triad that divides them into three main components:

1. **Physiological Arousal:** Changes in the body as the response to an emotional event (e.g. heartbeat, body temperature, blood pressure etc.)
2. **Motor Expression:** Changes in gestures, posture, voice tone and facial expression as a response to an emotional event.
3. **Subjective Feeling:** The initial understanding of an emotional event of the person that, consequently, leads to the verbal expression of the aroused feelings.

In this study, the author will be exploring the nature and measurement tools of the subjective feeling as it can be assessed through the use of the survey that will serve as a self-assessment tool for the respondent.

2.4.1 Emotions and Consumer Behaviour

For this study, it is necessary to investigate the important role of emotions in the consumer behaviour and consumer choice. According to Hansen (1972) emotions differently influence consumer choices in routinized, semi complex and extended consumer behaviour. Another research of Hansen et al (2004) identified that the decisions that require high involvement tend to cause much higher emotional response than low involvement decisions.

The level of uncertainty of emotions also has an impact on the consumer behaviour and decision-making. Raghunathan and Corfman (2007) stated that sad people with lower level of uncertainty tend to prioritize more certain tasks like dinner with friends, while anxious people prefer to complete the uncertain task (e.g. meeting the plumber) first in order to reduce their level of uncertainty. Moreover, it is also found in the study that people with higher level of uncertainty tend to remember more factual information with the aim to reduce risks in the process of decision-making. The findings were previously supported in the research of Lerner and Keltner (2000) that have identified that experiencing uncertain emotions (e.g. anxiety, fear) leads to more pessimistic judgments, whereas judgments made under certain emotions (e.g. anger, sadness) tend to be more optimistic. This fact can be caused by the previously mentioned desire of people experiencing uncertain emotions to minimize the risks.

Watson and Spence (2007) mentioned that different negative emotions experienced by the consumer lead to the specific coping strategies, for instance, anger led to confrontive coping, disappointment led to disengagement and regret led to acceptance. The authors believed that this finding is caused by the nature of the experienced emotions. To illustrate, anger is considered to be caused by other people and thus, the angry consumer would expect another person to fix the situation, whereas disappointment is an circumstance-caused emotion and, therefore, disappointed consumer would disengage in order to leave the situation. Lastly, regret, being often considered a self-caused emotion leads to the cognitive dissonance and, by that, the internal conflict pushes the consumer to accept the situation.

Similar study was previously done by Leone et al (2005) who investigated the impact of the anticipated emotions on the action evaluations and concluded that negative emotions complexly influence the evaluation stage of decision-making process. Moreover, the authors claimed that depending on the type of emotion, different implicit goals are activated. To illustrate, the goal of uncertainty reduction is activated by anxiety, whereas sadness might activate the goal of reward replacement. Mellers and McGraw (2001) underlined that anticipated pleasure leads to the optimism in the evaluation process and tends to increase the risk seeking. Bagozzi et al (1999) also mentioned that positive emotions tend to reduce the counterargumentation of the customer in cases when the advertisement of the product or service is based on the weak arguments.

Watson and Spence (2007) supported their findings on the impact of emotions on consumer behaviour by using the cognitive appraisal theory that depicts emotions as the mediator of situational characteristics and changes in consumer behaviour. The authors did not exclude situations that do not involve influence of emotions on the consumer decision, however, they have mentioned four following key appraisals - outcome desirability, agency, fairness and certainty - that were illustrated as the predictors or main drivers of a variety of consumer emotions.

The study of Sims (2014) investigated the role of emotions in the student's choice of the university. A quantitative sample of 5,240 students and additional 16 qualitative follow-up queries identified 16 emotions that most precisely reflected the emotional state of the students related to their consumer journey (see Table 2).

Positive Emotions	Negative Emotions
Calm	Angry
Competitive	Anxious
Confident	Confused
Engaged	Disappointed
Excited	Disinterested

Hopeful	Frustrated
Pleased	Lonely
Relieved	Stressed

Table 2: Emotions related to the choice of university. (Source: Sims, 2014)

Also, the results of the research showed that 49% of the respondents reported that their dominant emotional state during the search of the university was negative. The author claimed that this fact might be caused by a prevalence of fear and anxiety over the calm reasoning in adolescence. Increasing the level of the positive emotion and creating the content strategy for the owned social media are the main recommendations of the study.

Durking et al (2011) examined the emotionally driven concept to branding in the higher education and found that there is a positive impact of this approach on the brand likeability of the case university (University of Ulster, UK).

2.4.2. Measuring Emotions

There are numerous existing studies conducted by the researchers in order to determine the best possible tool for measuring emotions. The incorrectly chosen emotion measurement tool can lead to the limitations and biases in the research due to the complexity and indeterminacy of the nature of emotions.

Caisedo and Beuzekom (2006) listed the main emotion measurement tools and tested their validity in their research. The authors have identified two most relevant and efficient tools to test subjective feeling:

1) Geneva Emotions Wheel

This method of emotion measurement represents a wheel shaped figure, which illustrates 20 emotions families (Scherer, 2005). The respondent can choose between the intensity of the particular emotion that he/she has experienced by indicating the correct degree (out of five given) of the emotion on the wheel (See Figure 3). One of the limitations mentioned by

Caisedo and Beuzekom (2006) is the semantic nature of the model that complicates the procedure of the questionnaire in the international environment due to the perceived complexity of the vocabulary.

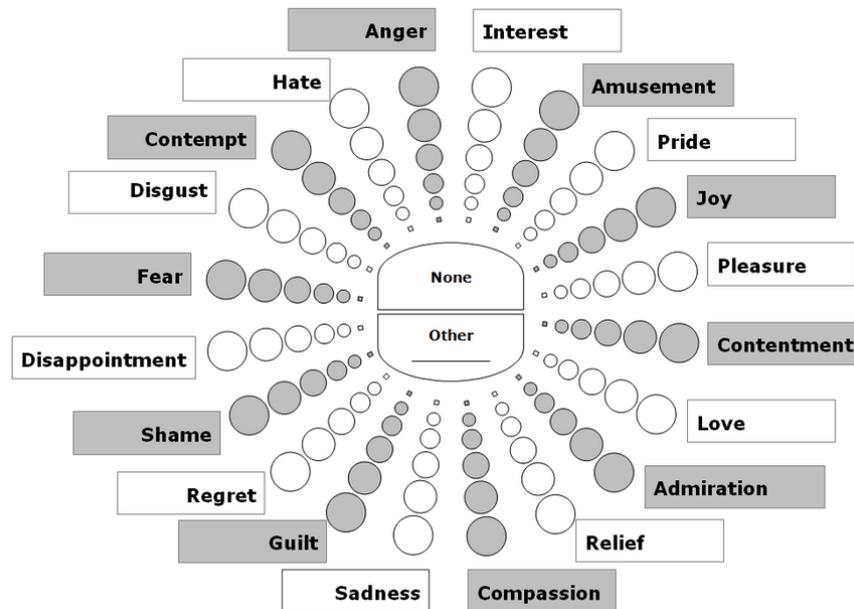


Figure 3: Geneva Emotions Wheel (Source: Scherer, 2005)

2) Product Emotion Measurement Instrument – PrEmo

Another tool used for the measurement of the subjective feeling is PrEmo. In this method, respondent is shown 10 images that visually represent 10 different emotions. The respondent can also choose the intensity of the experienced emotion by selecting one of the three points on the emotion intensity scale. However, Caisedo and Beuzekom (2006) mentioned that limited variety of emotions represented, low-degree intensity scale as well as ambiguity of the images might lead to the biased results.

Another measurement tool was created by Dr. Robert Plutchik in 1980 and is called Plutchik’s Wheel of Emotions.

3) Plutchik’s Wheel of Emotions

Plutchik has identified eight primary emotions – joy, anticipation, trust, anger, disgust, fear, surprise and sadness – and located them on the wheel-shaped figure to illustrate that each emotion is bipolar (See Figure 4). This method implies that all other emotions on the wheel are derived from the mentioned eight core emotions, or from the mixture of them. Karimova

(2017) analysed Plutchik’s wheel of emotions and mentioned that the intensity degree of the particular emotion is represented on the model as the range of other emotions. To illustrate, the intensity level of anticipation is a range of emotions from interest to vigilance.

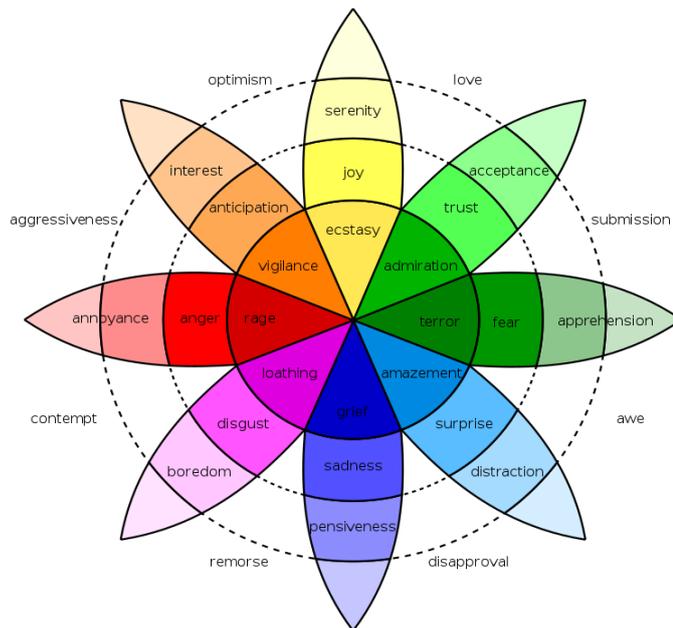


Figure 4: Plutchik’s Wheel of Emotions (Source: Plutchik, 1980)

Similarly to the Geneva Emotions Wheel, Plutchik’s Wheel of Emotions has a semantic nature and, therefore, might be difficult to perceive. However, due to the use of the colours for the better illustration of the emotions range and intensity, Plutchik’s model seems to be more understandable for the respondent.

Analysing all the emotion measurement tools and their limitations described above, Plutchik’s Wheel of Emotions will be used in the methodology section of this thesis.

2.5. Brand Intimacy

Considered a new paradigm in marketing, brand intimacy was defined by Aaker in 2013 (p.121) as a ‘brand attitude that locks trust into the relationship’. The author added that to measure the degree of intimacy it is necessary to identify the success of the brand in terms of creating the personal emotional connection to the individual customer (Aaker, 2013).

Natarelli (2018) stated that appealing and connecting to customer's emotions is crucial in order to affect the decision-making process, as the brand intimacy is parallel to the human intimacy. In other words, people tend to build their relationships with the brand similarly to the relationships between each other. The author also created the Brand Intimacy Model and through factor analysis, identified 6 following archetypes or tools that help to build the brand intimacy:

1. **Fulfillment:** Exceeding the expectations and fulfilling needs and wants of the customer
2. **Identity:** Reflection of the customer values by the brand with an aim to resonate and create a personal connection
3. **Enhancement:** Enhancing the satisfaction of the customer by making them to become better, smarter and more capable
4. **Ritual:** Becoming a part of the daily routine of the customer in order to create a ritual
5. **Nostalgia:** Motivating and inspiring the customer by creating the association of comfort and evoking the customer's past positive memories
6. **Indulgence:** Indulging customer by rewards and gratification

Turri et al (2013) researched how to create strong brand intimacy in an online context and, particularly, in social media. The study states that brand intimacy leads to affective commitment, where consumers are interested in the long-term relationship with the brand, because their needs have been met. Thus, the authors highlighted that focusing on the customer values in the social media content is crucial in order to build close connection between the consumer and the brand. Furthermore, the value co-creation is another important aspect of developing brand intimacy as it allows to involve the consumer in creating and sharing the social content as well as expressing their needs. Social media, due to its interactivity, can be

extremely helpful in building trustful and intimate relationship between consumer and brand and, moreover, facilitates users to provide valuable feedback. Last but not least, Turri et al mentioned that storytelling and generating brand experience around the brand could improve brand intimacy by connecting consumer to the human aspects of the brand.

Barcelos et al (2016) created a research model for the effect of brand intimacy on consumer responses and online experience. The model shows the positive impact of the brand intimacy on hedonic value of the online experience, attitude towards the brand and, consequently, the purchase intention.

2.6. Summary of the literature review

As mentioned earlier, the purpose of this literature review is to explore the interconnection between the five main concepts illustrated in the conceptual model of the study: social media marketing, emotions, brand intimacy, digital consumer behaviour, and university recruitment. In order to create a holistic picture based on the previously discussed research as well as illustrate the linkage between the elements of the conceptual model, it is helpful to summarize the literature review.

The successful university recruitment strategy should consider and incorporate the knowledge on the main factors, such as course content, location of the university and social life, that influence the choice of the potential student (Eliot and Healy, 2001). Beswick (1989) and Anderson (1999) identified the previously mentioned main factors, however, the current perspective on the most influential aspects is shown in the research of Agrey and Lampadan (2014), Rudhumbu (2017) and Roche (2018). Correctly defined target markets and messages for the communication with the potential student (Sigler, 2018) as well as the focus on the future (Drucker, 2016) logically lead to the consideration of the social media marketing for the implementation of the student recruitment practices. Strategic approach on social media is a current trend in the university recruitment (Hanover Research, 2014). Shahid et al (2012) claimed that WoM is the most effective tool for the student recruitment, thus, another

linkage with social media marketing is made – user-generated content is one of the main benefits of using social channels for marketing purposes (Kumar and Mirhandani, 2012). The benefits of social media marketing for the student recruitment, such as creation of the early sense of belonging and co-creation of the experience, were communicated by Rutter and Ropper (2016), Reuben (2016), Fagestrom and Ghinea (2013), Clark et al (2017) and in the TrackMaven Report (2017). The connection between social media marketing and digital consumer behaviour is supported by Ashman et al (2015), that have transformed the traditional Engel, Kollatt and Blackwell (1968) decision-making model considering the influence of the digitalization and social media. The digital arena has become significantly expanded with the emergence of social networks and, thus, the digital consumer behaviour is currently closely linked to the concept of social media and content marketing, which ensures that needs and wants of the customer are incorporated in the social media content.

The use of the content with the positive sentiment that awakens positive emotions leads to the increased engagement of the consumer (Jaakonmäki, 2017). Moreover, emotions have a direct impact on the consumer choice (Hansen, 1972), (Hansen, 2004). Also, the level of emotional uncertainty influences decision-making process (Raghunathan and Corfman, 2007) and, particularly, the evaluation phase (Leone et al, 2005). There is also a linkage between the emotions and university recruitment as the choice of university (Sims, 2014) and brand likeability (Durking et al, 2011) are influenced by the emotional state of the potential student. Appealing to the emotions of the consumer is also important in order to build a brand intimacy – emotional connection to the university, in this case (Blackston, 2000).

3. Methodology

The research presented in this thesis combined quantitative and qualitative methods of analysis. A qualitative method – personal interviews with customer journey mapping –served as a basis for conducting the experimental design.

As stated above, the main research question of the study is: “How do social media communications of universities affect the impressions of prospective graduate students about the university?”

The following table shows the sub-questions that identify the dilemmas, which should be elucidated in order to draw the conclusion together with the methods of analysis that will be used to resolve the question:

Sub-question	Method of analysis
1. What is a potential graduate student's typical customer journey for university selection?	Customer journey mapping
2. When and how do social media communications intervene in the university selection process?	Customer journey mapping
3. What effects does social media content have on the emotions of the potential graduate?	Customer journey mapping and experimental design
4. How does social media content influence emotions of the potential graduate students and, consequently, their likelihood of application to the university?	Experimental design

3.1. Target audience

Potential and current graduate students (students, that are pursuing their Master’s Degree) were chosen as a target audience for both qualitative and quantitative methods in this research. The choice of the sample was based on the assumption that the decision-making process of the prospective master students is more conscious and informed comparing to the undergraduate applicants. Moreover, the parents’ influence on the final decision to apply should be less significant for the graduate students due to the higher level of experience of students as well as higher average age.

3.2. Customer Journey Mapping

The customer journey maps, according to the Forrester Research (2010), are defined as ‘documents that visually illustrate customers’ processes, needs, and perceptions throughout their relationships with a company.’ Another definition of CJM is given in the study of Rosenbaum (2016, p.2) that stated that ‘it is a visual depiction of the sequence of events through which customers may interact with a service organization during an entire purchase process’. The customer journey mapping has been already employed by many corporations and institutes in order to understand the customer needs and wants, improve the strategy, and implement the innovation in the best possible way.

The possibility of the personalization in relation to the customer journey as well as the deepened understanding of the customer decision process, that enables the opportunity for the intervention or influence (Lemon & Verhoev, 2016), imply the applicability of the customer-journey mapping for this research. Five personal semi-structured interviews with potential applicants for graduate university programs were conducted to map typical customer journeys related to university selection and application, and further serve as a base for creating social media mock-up content targeting critical decision points within the customer journeys. The interviews were conducted face-to-face in order to enable the interviewee to provide comprehensive answers on their needs and touch points as well as to identify the emotions during the journey. Each phase of the customer journey map is supported by the main touch points and thoughts/feelings, experienced by the respondent during this phase.

3.2.1 Sampling

The sample of respondents for the qualitative research – customer journey mapping – included five students of four different European universities.

Figure 5 illustrates the persona portfolio of each respondent, including their age, university and program, and country of origin. The following criteria were considered in the choice of the respondents:

- Country of origin located in Europe
- Currently enrolled in the graduate program at university
- Age: 23-30

The criteria were selected in order to control for certain variables, such as differences in the cultural background and mentality of the participants as well as the generation gap.

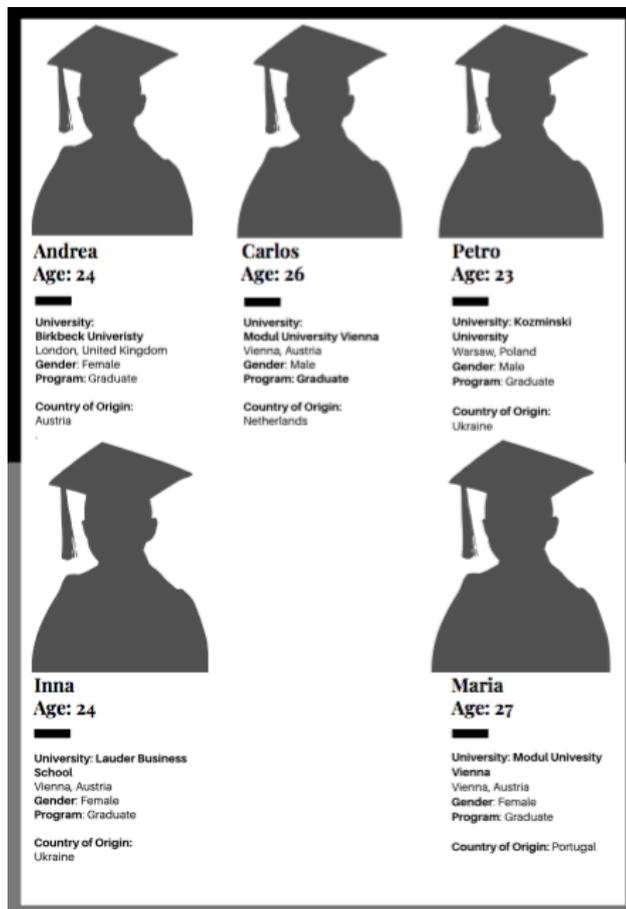


Figure 5: Persona Portfolio of the Customer Journey Map participants

3.2.2. Semi-Structured Interviews

The researcher has chosen semi-structured interview method to obtain the qualitative data and demonstrate it on the customer-journey maps. The

selected method allows the respondent to freely discuss their opinion and, therefore, provides a detailed answer to the questions. The researcher has composed a list of questions that served as a guideline for the interview. Some of the questions prepared beforehand are:

1. How did you get to know about the university where you currently undertake your graduate studies?
2. Which factors did you consider when you were searching for the university?
3. Whom did you talk during the process of university selection?
4. How did you decide to apply to the university?
5. How did you feel during the process of the university selection?

Depending on the answer of the responded, the researcher has adjusted the sequence of the following questions. The customer journey maps were created together with the respondents by using previously prepared templates and stationery (stickers, notes etc.) for the better visualization of the customer journey on the maps.

3.2.3. Designing customer journey maps

According to the previously discussed framework of Edelman and Singer (2015) and considering the specifics of the university selection process, the author has identified four main phases of the university selection process and included them in the customer journey maps (x-axis):

- **Phase 1: Awareness**

During the awareness phase, the potential applicant identifies the problem and begins to search for the possible solution. At this phase, respondent has a first touchpoint with the university he or she has applied to.

- **Phase 2: Consideration**

The applicant is considering multiple options, comparing different universities and evaluates various criteria of the university.

- **Phase 3: Decision**

During the decision phase, the respondent has decided, which university he/she wants to apply to and, therefore, begins preparing for the application.

- **Phase 4: Application**

The application phase (also called purchase phase) implies the process of the actual application to the university

The y-axis of the customer journey maps represents four main components of the customer journey throughout all previously mentioned phases:

1. *Emotions* (Answering the question: How did you feel?)
2. *Actions* (Answering the question: What did you do?)
3. *Thoughts* (Answering the question: What did you think of?)
4. *Communication* (Answering questions: Whom did you talk to? Did you check social media channels/website of the university?)

Moreover, researcher has identified the pain points and moments of truth (Zero Moment of Truth, first and second moments of truth). Zero Moment of Truth, or ZMOT, is a recent concept introduced by Google and defined by Lecinski (2011) as a moment of the first connection with a brand, first impression about the product, and beginning of the purchase path, which is usually happening online. The first moment of truth occurs at the store shelf for most of the tangible products (Agile Marketing, 2011). Defined by Procter & Gamble (The Wall Street Journal, 2005), first moment of truth is an immediate impression about the brand involving comparison of its characteristics with the needs and wants of the consumer. The second moment of truth, or SMOT, represents the moment of the first actual experience of the brand offer by the consumer, which can happen either before or after the purchase (Draper, 2017). The described moments of truth

have been illustrated on the customer journey maps in order to visualize the critical points of the customer decision-making process.



Figure 6: Example - Customer Journey Map of the Respondent 5.

Furthermore, the customer pain points, defined as problems that the customer of a particular brand is experiencing during his/her customer journey (Shewan, 2018), are added to the maps. Figure 6 illustrates the example - customer journey map created during the interview of the Respondent 5. Other four CJMs can be found in the Appendix 1.

3.3. Experimental Design

The purpose of conducting the experiment in this study was to compare the likelihood of application to the university before and after application of the treatments – two different Instagram posts, that were previously designed to fit the needs and wants mentioned by the respondents that were interviewed during customer journey mapping. As mentioned above, the research sub-question that will be answered during the experiment is:

‘Is there a correlation between the social media content, emotions of the potential applicant and the decision regarding the university selection?’.

The experimental procedure was designed according to the checklist presented by Creswell (2014) that identified participants, materials, procedures and measures as main factors to consider during the design. Thus, the following elements as well as the hypotheses development will be discussed further in this section.

3.3.1. Participants

According to Creswell, the target audience – participants of the experiment – as well as selection process have to be identified in the experiment design. The target population of this experiment was selected according to the following criteria:

1. Participants aged 20-35 years old
2. Participants, which are currently pursuing Bachelor's or Master's degree
3. Participants that graduated with Bachelor's degree and are currently looking for Master's program

The mentioned criteria were chosen in order to target respondents that would represent the most realistic audience in this setting.

As the researcher has used the purposive non-probability sampling for the purpose of the selection of participants, the type of this experiment is a quasi-experiment (Creswell, 2014). The purposive sampling was performed by distributing the link to the experiment to the groups of people that fitted to the selection criteria and were available for the researcher. By that, the researcher has posted the link on the own social media profiles in Instagram, Facebook and LinkedIn, as well as shared it in the university groups, groups of graduate researchers and social media profile of Instagram influencer the age of the target audience of which is fitting to the criteria of the research. The number of actual respondents included 153 representatives of the sample.

3.3.2. Instrumentation and Materials

The quasi-experiment was designed as a short survey on the SurveyMonkey platform that allowed the researcher to assign respondents to two groups in order to apply two different treatments. Moreover, this survey tool was chosen due to the convenience of usage and analysis of the data collected as it automatically transformed the results of the survey into pie charts, graphs and other visual materials that have primarily illustrated the outcomes of the experiment for the researcher. The validity and reliability of the tool was proven by a significant amount of the previous surveys and questionnaires performed using SurveyMonkey platform. During the procedure, there were no technical issues identified neither by the researcher nor respondents.

3.3.3. Variables

To clarify the experimental procedure, independent and dependent variables need to be specified in this research. Creswell defines the dependent variable a variable that is being caused by or influenced by the treatment (or independent variable). In this quasi-experiment, there are two *dependent variables*: emotions of the respondent and *likelihood of the application to the university*. Eight emotions that were compared in the pre- and post-test of this experiment were anticipation, joy, trust, fear, surprise, sadness, disgust and anger. According to the previously discussed Plutchik's Wheel of Emotions, these are the core emotions that serve as a basis for all other emotions on the wheel. The *independent or treatment (grouping) variable* in this study was the *social media content*. Two groups of respondents that have been randomly assigned by the survey platform received two different treatments in a form of Instagram posts of the university.

4. Qualitative Findings

The study uses customer journey mapping as a qualitative analysis in order to answer the sub-questions of the research. Thus, the detailed analysis of emotions, actions, thoughts and communication during four identified phases is performed in this section.

4.1. Emotions

The researcher has analysed the Emotions section according to the answers given by all five respondents. Table 3 shows various emotions of the respondents, that they have encountered during their decision-making process.

	Phase 1: Awareness	Phase 2: Consideration	Phase 3: Decision	Phase 4: Application	Post- Application
R1	Peaceful	Fearful, Unsafe	Concerned, Doubtful	Excited, Encouraged	Disappointed
R2	Insecure	Tensed, Frustrated	Relieved, Confident, Happy	Excited	Happy
R3	Tensed, Stressed	Excited, Happy, Confident	Tensed, Fearful	Impatient, Excited, Anxious	Happy, Proud
R4	Excited, Curious	Doubtful, Concerned	Awkward, Secure	Tensed, Relieved, Confident	Exhausted
R5	Peaceful	Anxious, Insecure, Excited	Comfortable, Optimistic	Afraid, Concerned	Satisfied, Joyful

Table 3: Emotions – Customer Journey Maps

The negative emotions reported by the respondents are highlighted with the red colour in the table. It is apparent from this table that most of the negative emotions were traces during the Consideration phase. During the interviews, four out of five respondents mentioned that they felt pressure of the decision importance as well as anxiety or fear in this phase. It has to be said that experienced emotions, such as anxiety, fear or insecurity, have high level of uncertainty. As it was previously mentioned in the literature review, experiencing uncertain emotions, people tend to reduce the level of uncertainty and minimize risks.

Three out of five respondents have perceived phases 1, 3 and 4 emotionally positive, experiencing such emotional states as excitement, peacefulness, curiosity, optimism, relief and confidence. Emotions during the post-application phase were dependent on the experience of studying at the

particular university and comparison of the expectations about the study with the actual outcome of the application.

4.2. Actions

During the interviews, the ‘Actions’ section served as a core element for the

	Phase 1: Awareness	Phase 2: Consideration	Phase 3: Decision	Phase 4: Application
R1	Searched for ratings of the top universities	Applied to each university from Top 10 list	Got accepted to 3 universities → compared them; decided to apply to Birkbeck University	Applied via online application tool
R2	Visited university location as a tourist. Applied to some public universities	Compared 3 different programs of one private university	<i>Prepared savings plan</i>	Applied via online application tool
R3	Contacted educational agency	Compared different universities and programs	Compared the university with the negative experience (previous Bachelor studies); <i>Looking for the financial support</i>	Applied via online application tool
R4	Talked to the current Master students and alumni	Compared different public and private universities; called chosen university to arrange the meeting	Visited university for the Open Day	Applied via online application tool (3-step application)
R5	Searched for the universities in Google	Discussed further information with the admission office, had university tour	<i>Contacted family for the financial support</i>	Applied via online application tool

Table 4: Actions – Customer Journey Maps.

customer journey mapping (See Table 4). Respondents have indicated their steps in the procedure of choosing and applying to the university that, consequently, led them to the experienced emotions. The responses of the participants show that even though, all of them became aware of the university in the different ways, during the Consideration phase most of

them were comparing various options – universities and programs – that they considered applying to. Also, it is necessary to mention that during the Decision phase, 3 out of 5 respondents were searching for the financial support or preparing savings plan. This fact can be beneficial for creating efficient social media content plan, when targeting applicants in their Decision phase.

4.3. Thoughts

	Phase 1: Awareness	Phase 2: Consideration	Phase 3: Decision	Phase 4: Application	Post- Application
R1	<i>Factors considered:</i> Location, Duration of the program, Rating of the university, Price, Public/Private	‘Don’t know anyone in the city/university’ Preferred program: Marketing	‘Is the university good?’ ‘Is the location of the university convenient?’	‘Easy application process’	‘No real student life, no student community’
R2	‘I don’t belong here’, ‘I feel distant’	<i>Factors considered:</i> Personal approach, how international the university is, price, exchange options	‘Are there any available discount options?’	‘Easy application process’	‘Expectations met reality’
R3	<i>Factors considered:</i> Location, Private/Public, Fast admission process	‘I am curious about the city’, ‘I have high expectations’	‘Will I be accepted?’, ‘I don’t have time’, ‘I don’t have many other options’, ‘Price is important’	‘Hope I’ve made a right choice’, ‘Easy application process’	‘I do not regret because expectations met reality’
R4	‘Alumni have motivated me to apply’, ‘I want to get more information’	‘There is no relevant information on the FB page’ <i>Factors considered:</i> Price, English language, Private	‘It was not comfortable to be the only student on the Open Day’	‘I feel confident because I know a lot about the university’	‘Intense workload’, ‘I regret applying to the university’
R5	<i>Factors considered:</i> Program, language extended application deadline	‘There is only one suitable option’, ‘How to combine job and studies?’	‘I’ve found an ideal program!’, ‘I would not apply without family support’	‘Application procedure was easy’, ‘I’m scared I will have to wait 1 more semester’	‘My expectations about the program were not fully met’

Table 5: Thoughts – Customer Journey Maps.

Thoughts, that respondents were encountered to during their customer journey, are closely connected to the experienced emotions and actions. Moreover, by exploring thoughts of the consumer during the decision-making process, it is easier to identify the correct social media marketing

strategy for the university, as it clearly shows what the respondent were looking for and which information would meet his/her needs.

Table 5 shows that potential applicants tend to consider important factors to make the evaluation of the university during the Awareness and Consideration phases. Among the other named factors, location, price, rating of the university and language were mentioned the most frequently. The interconnection between emotions and thoughts of the customer is clearly visible – negative emotions are most often caused by the uncertainties and doubts in the thoughts of the respondent. By receiving necessary information, respondent was minimizing the level of uncertainty, and, consequently, experiencing positive emotions.

4.4. Communication and Social Media

During the customer journey mapping, one unanticipated finding was that the respondents stated that they checked very few social media sources before their application and relied mostly on the official website to obtain necessary information. Figure 7 illustrates the channels that were used by all five respondents in their customer journey (including social media channels and official website).



Figure 7: Online channels (Social Media and Official Website) – Customer Journey Maps

As two respondents mentioned, they used Facebook in order to check the university page and communicate with the current students of the university. Moreover, when checking Facebook page of the university, respondent was seeking to see more of informal information (e.g. student life, alumni stories

etc.), but as the page content was, on the contrary, formal and official, the respondent did not spend a lot of time on the page. Another respondent has viewed some of the YouTube videos on the official YouTube channel of the university during the Decision phase. The respondent also shared the videos with friends and family as it had positive sentiment and created a feeling of belonging. The official website was checked by all 5 respondents during the Awareness (in 1 case) and Consideration (in 4 cases) phases.

Turning to the communication of the respondents during their decision-making process, the interviews has shown that applicants communicated mostly with their family members, university staff and the current student or alumni of the chosen university (See Table 6).

	Phase 1: Awareness	Phase 2: Consideration	Phase 3: Decision	Phase 4: Application
R1	Family	Parents (financial support)	Local students (in London)	Family friends from London
R2		Admission Office, Dean	Parents	
R3	Educational Agency, Family	Educational Agent	Mother, <i>Local students</i>	
R4	Current students, <i>Alumni</i>	<i>Students</i> (negative feedback)	Recruitment Office	Boyfriend
R5	Cousin (living in Vienna)	<i>Alumni</i> , Admission office	Father (financial support)	

Table 6: Communication – Customer Journey Maps

All of the respondents mentioned that they have contacted their parents in the Consideration or Decision phases to discuss the choice or ask for the financial support. Therefore, even though the target audience for this research – potential graduate students – was chosen in order to minimize the influence of parents on the decision-making process, it is still visible that parents play a significant role in the customer journey of the respondents. Besides talking to parents, respondents were asking current students and alumni to share feedback and talk about their experience.

4.5. Moments of Truth

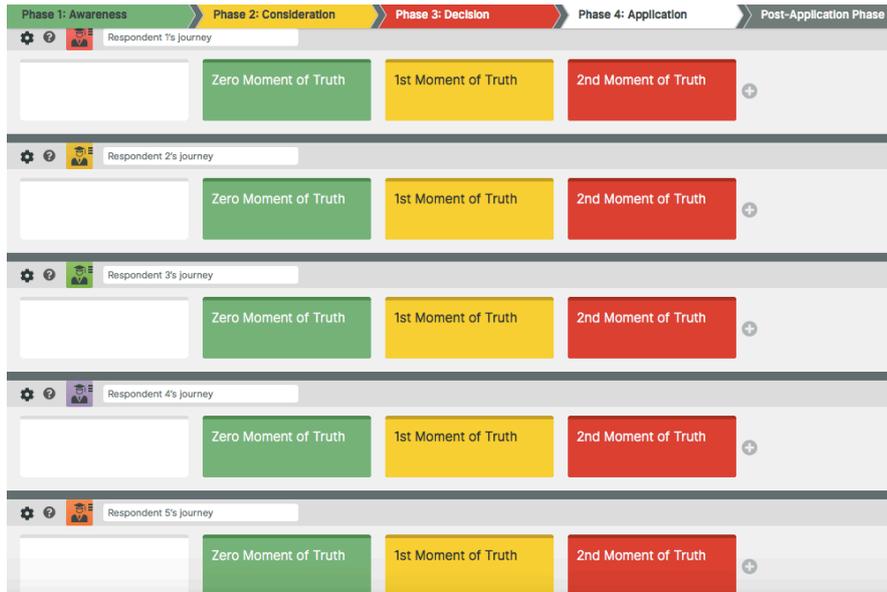


Figure 8: Moments of Truth – Customer Journey Maps

Interestingly, the Consideration phase is also the period for experiencing Zero Moment of Truth for all five respondents (See Figure 8). It can be explained by the fact that Stimulus, or the moment when the customer is first exposed to the brand, happened for all of the respondents during the Awareness phase. The First and Second Moments of Truth took place during the Decision and Application phases respectively for all of the respondents.

4.6. Pain Points

	P1:	P2	P3	P4
R1		PP	PP	
R2		PP		
R3	PP		PP	
R4		PP		PP
R5		PP		PP

Figure 9: Pain Points – Customer Journey Maps

Analysing thoughts, emotions and actions of the respondents visualized on the customer journey maps, author has identified the pain points during the decision-making processes of the respondents. Figure 9 shows frequency of

the pain points for every respondent. It has to be said that the pain points precede the moments of truth and, therefore, they also precede the significant events in the customer journey. Four out of five respondents have experienced pain points in the Consideration phase, which were linked to the negative emotions and thoughts mentioned above.

4.7. Qualitative results

Analysis of the customer journey maps created by the researched has shown that the process of selecting the university is emotionally intense for the graduate applicant and complex to analyse.

First, it is necessary to highlight the importance and complexity of the Consideration phase in the customer journey of the potential student. This phase has a significant meaning for the applicant as most of the touch points with the university is happening during this period of time. To illustrate, Zero Moments of Truth, which can be considered as an important stepping-stone to the application, took place during the Consideration phase for all five respondents. Moreover, four out five participants have experienced pain points in Consideration phase, which, undoubtedly, influenced the emotions felt in this period as most of the respondents mentioned that they have felt fear, doubt, anxiety and insecurity during this phase.

Second, during the Decision phase, the respondents were communicating with their families and gathering factual information on the university and, particularly, financial information. This phase was less emotionally intense, as most of the respondents mentioned that they felt safe and secure and, furthermore, only two out of five respondents experienced pain points during this phase.

Last but not least, the touch points with the social media of the university, surprisingly, were not expressed by the respondents as often as expected due to the fact that in most cases they preferred to obtain necessary information from the official website of the university.

Two research sub-questions that should have been answered after conducting customer-journey mapping will be analyzed in the discussion section of this study.

5. Execution of Experiment

5.1. Hypotheses development

As the research sub-question for the experiment was identified, it is necessary to create the main hypotheses as well as secondary hypotheses in order to perform an analysis of the quantitative data. Thus, the hypotheses testing in this part of the study enables the researcher to present results and outcomes of the experiment (Creswell, 2014).

The main hypotheses accepted or rejected by conducting this experiment and after testing the secondary hypotheses are:

H1: There is an influence of social media content on emotions of the potential graduate students.

H2: There is an influence of social media content on likelihood of application to the university of potential graduate students.

By testing this hypothesis, the researcher was able to answer the main research question and identify the possible influence of social media content on the emotions and decision regarding the university.

Prior to testing secondary hypotheses listed further, the researcher has investigated whether there was a correlation between each of the eight evaluated emotions (anticipation, joy, trust, fear, surprise, sadness, disgust, fear) and likelihood of application to the university. Further, it was necessary to test following secondary hypotheses:

- There is no difference in number of respondents who felt *anticipation* during the pre-test and post-test:

- After the application of Treatment 1.
 - After the application of Treatment 2.
- There is no difference in number of respondents who felt *joy* during the pre-test and post-test:
 - After the application of Treatment 1.
 - After the application of Treatment 2.
- There is no difference in number of respondents who felt *trust* during the pre-test and post-test:
 - After the application of Treatment 1.
 - After the application of Treatment 2.
- There is no difference in number of respondents who felt *fear* during the pre-test and post-test:
 - After the application of Treatment 1.
 - After the application of Treatment 2.
- There is no difference in number of respondents who felt *surprise* during the pre-test and post-test:
 - After the application of Treatment 1.
 - After the application of Treatment 2.
- There is no difference in number of respondents who felt *sadness* during the pre-test and post-test:
 - After the application of Treatment 1.
 - After the application of Treatment 2.
- There is no difference in number of respondents who felt *disgust* during the pre-test and post-test:
 - After the application of Treatment 1.
 - After the application of Treatment 2.
- There is no difference in number of respondents who felt *anger* during the pre-test and post-test:

- After the application of Treatment 1.
- After the application of Treatment 2.
- There is no difference in likelihood to apply to the university during the pre-test and post-test:
 - After the application of Treatment 1.
 - After the application of Treatment 2.

Main hypotheses will be rejected or accepted by the author later in the study after testing the secondary hypotheses.

5.2. Experimental procedure

Based on the results of the customer journey mapping, the researcher has created the mock-up content for the experimental design. In the primary story that was displayed in the beginning of the experiment to every participant of the survey, the respondent was asked to imagine that she/he is currently looking for the university to obtain Master's degree and is aware of three universities that he/she is comparing. By that, the researcher has intended to create a setting of the Consideration phase that was identified as a most emotionally complicated during the customer journey mapping. In order to immerse the respondent in the most realistic setting, the researcher has invented the overview-description of the non-existent abstract university. The description of the university was included in the primary story and consisted of the following information:

- ***Silver Lake University*** – a nationally accredited and internationally known private university located in Central Europe (desired location of the respondent):
 - Offers desired program of the respondent – MSc in Management, taught in English
 - The tuition fee of the program matches the budget of the respondent

- The duration of the program is 2 years and the student/faculty ratio is 1/40 with the total amount of students 7000.

Then, the respondent was asked to imagine him- or herself thinking of the Silver Lake University as one of the possible options and making the decision about the application. After that, the pre-test of the dependent variable was performed.

The pre-test included two questions that respondents were asked to answer in order to measure their emotions and identify the likelihood of the application to the university before the application of the treatment. In the first question, respondents have been shown 8 emotions mentioned above in the squares of the colour assigned to every emotion in the Plutchik's Wheel (See Figure 10) and were asked to pick the emotions that they were feeling at the moment.

* 1. In this situation, which of the following emotions do you feel?



Figure 10: Emotions measured in the experiment

The second question of the pre-test was: ‘How likely is that you will apply to this university?’ The respondent was asked to pick the answer on the Likert scale and, by that, the researched was able to measure the likelihood of the application to the university before application of the treatment.

Further, after the pre-test was conducted, respondents were divided into two groups. The assignment to one of the groups was made by suggesting the respondent to choose one of the identical images that would guide him/her to seeing the specific treatment.

Two different Instagram posts were created by the researcher prior to the experiment and served as treatments for each group (See Figure 11 & 12).



Figure 11: Treatment 1. Instagram post displayed for the Group 1.

Treatment displayed to the Group 1 (Figure 11) was designed with the aim to create a feeling of belonging and personal approach to the respondent. Also, this treatment was expected to cause or strengthen positive emotions of the participant as well as reduce the level of uncertainty and negative emotions. Simultaneously, treatment applied to the Group 2 (Figure 12) was designed to provide the factual information about the university and display the image – university building - that was not expected to cause significant changes in the emotions of the respondent.

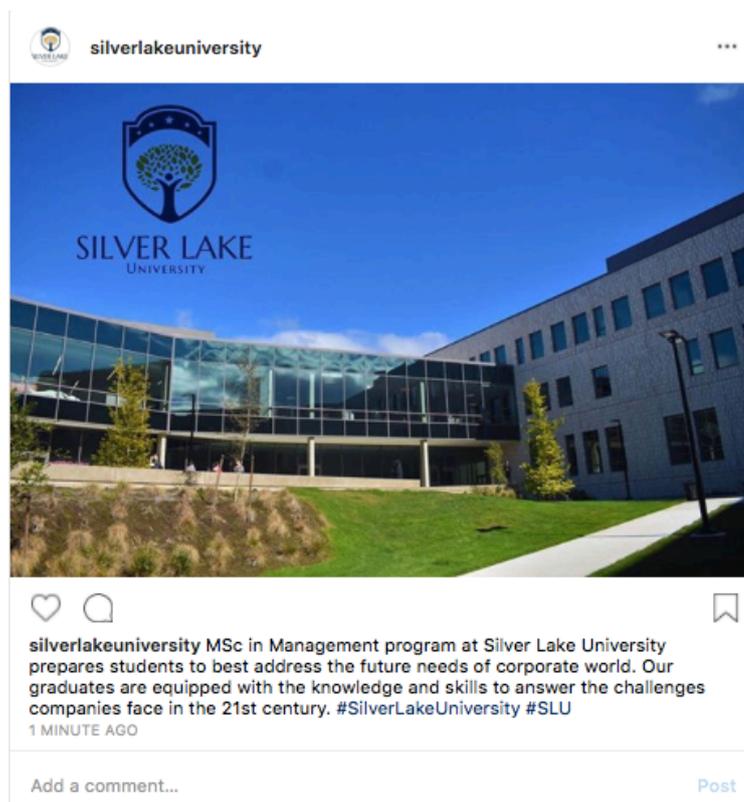


Figure 12: Treatment 2. Instagram post displayed for the Group 2.

After the application of the treatment, the researched conducted a post-test, where the respondents of each group were asked one more time to evaluate their emotions and likelihood to apply to the Silver Lake University. The purpose of the post-test was to compare the emotions and likelihood to apply before and after the application of the treatment. Lastly, respondents were asked to provide the demographic data on their age, gender, nationality and education level. This data was collected to assess the diversity of the

sample and identify possible limitations of the research. Full questionnaire for the experiment can be found in Appendix 2.

6. Quantitative Findings

The following quantitative research analysis is divided into three parts: descriptive data analysis, hypotheses testing and conclusion. The interpretation of the qualitative and quantitative results is discussed later in the study.

6.1. Descriptive data analysis: Demographic data

The experiment performed for this study included 153 respondents, who have completed the questionnaire. Of the 153 subjects who participated in the experiment, 25% were male, whereas the majority (75%) was female (See Figure 13). However, the discrepancy in gender was not expected to influence the results of the experiment.

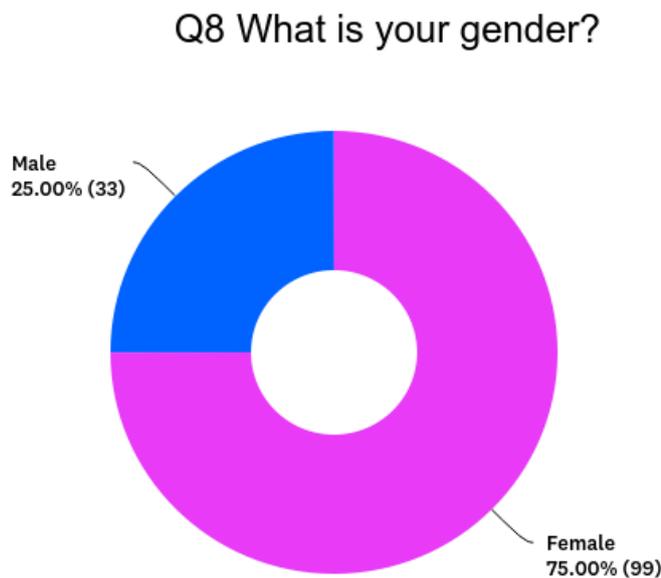


Figure 13: Gender distribution of the respondents

Two important demographic factors for this study are the age and highest completed education of the respondents. Figure 14 illustrates the results of the questionnaire that show that 66,67% of the participants were aged 21-

25, 25% - 26-30 and minority of the respondents – 8,33% - were 31-35 years old in the moment of answering the questionnaire.

Q9 What is your age?

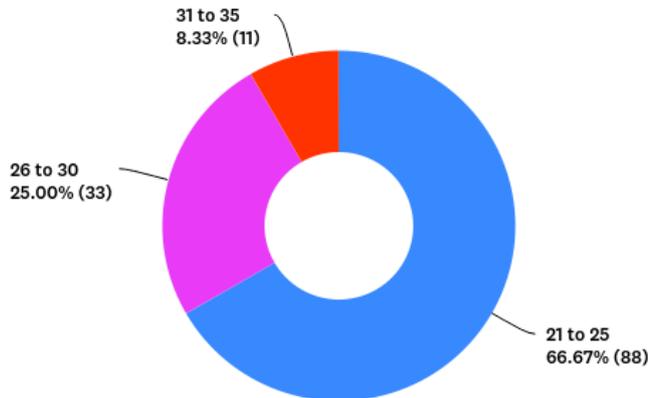


Figure 14: Age distribution of the respondents

Thus, the age of the participants complied with the age criteria set for the experiment.

As for the education level, majority of the respondents have completed Bachelor's degree (53,03%), whereas equally 23,48% have finished high school or completed Master's degree (Figure 15).

Q11 What is the highest level of education you have completed?

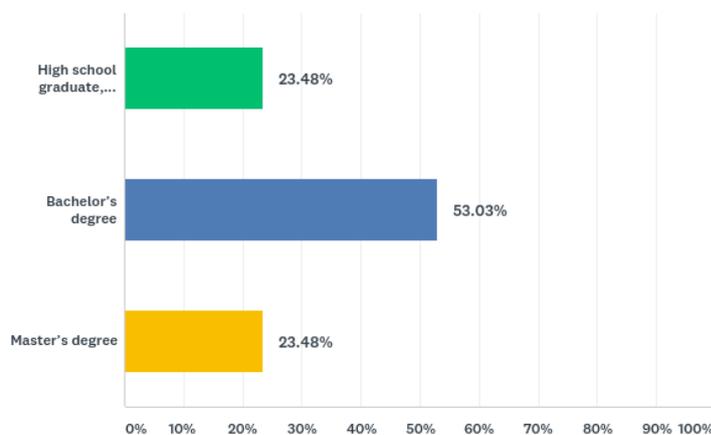


Figure 15: Highest level of education completed by the respondents

In terms of nationality, majority of the respondents were German (34,85%), Ukrainian (21,97%) and Austrian (9,09%). 34,09% of participants belong to other nationalities.

According to the results of the experiment, participants were almost equally distributed to two groups that received different treatments (Figure 16).

Number of Respondents

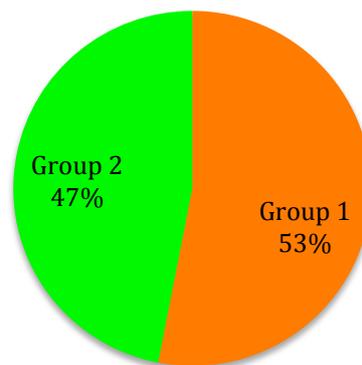


Figure 16: Distribution of the participants to two treatment groups

6.2. Descriptive data analysis: Pre-test

As mentioned before, during the pre-test of this quasi-experiment, the participants were asked to make their choice from the list of the emotions, compiled according to the Plutchik's Wheel of Emotions, depending on their current feeling after reading the university description. Moreover, in the second pre-test question, participants were asked to evaluate their likelihood of application to the Silver Lake University.

These questions were displayed to the participants in the pre-test, before assignment to the groups. Therefore, all 153 respondents participated in the pre-test.

Figure 17 illustrates emotions that the participants have chosen in the pre-test.

Q1 In this situation, which of the following emotions do you feel?

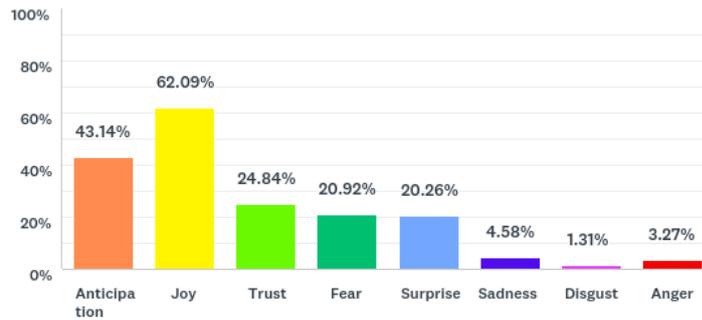


Figure 17: Emotions felt during the pre-test

Results showed that over half of the participants felt joy (62,09%), and anticipation in the pre-test. Moreover, respondents have also often indicated trust fear and surprise in their answers. On the contrary, very few participants indicated sadness, disgust and anger, as emotions that they have felt. However, in order to make implications, comparison with the post-test results must be done. In response to question 2, the majority of surveyed (47,08%) indicated that it is likely that they would apply to the described university. The overall response to the question showed that 75,18% of the participants would apply to the university likely or highly likely, whereas only 12,42% said that their application would be very unlikely or unlikely. Another 12,42% of respondents could not decide (See Figure 18).

Q2 How likely is that you will apply to this university?

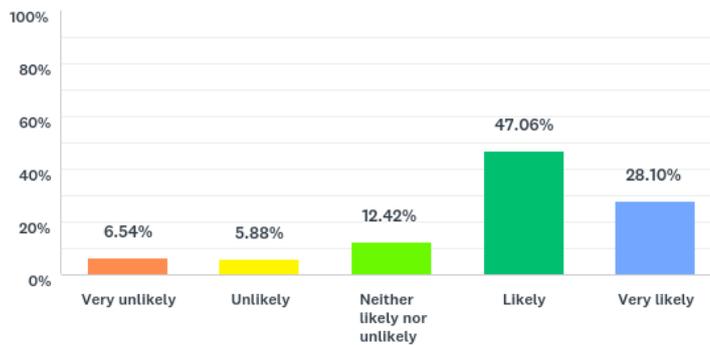


Figure 18: Likelihood of the application to the university in the pre-test

The descriptive statistics showed that mean for this question is equal to 3.84 (when 1-very unlikely, 5 – very likely), and standard deviation is 1.10.

Thus, it can be supported by descriptive statistical findings that it is more likely than unlikely that people would apply to the university in the pre-test.

6.3. Descriptive data analysis: Post-test

After the assignment to one of the two groups, the treatment variables – Instagram posts – were shown to the participants. In this section, researcher analyses the descriptive data of the post-test of both of the treatment groups.

6.3.1. Treatment Group 1

The sample of respondents that were assigned to the Group 1 included 78 participants. After the treatment was applied (Instagram post that includes a picture of the student), respondents were asked to answer identical questions as in the pre-test.

Q4 After seeing this post, imagine yourself thinking of Silver Lake University as of one of the university options and making your decision. Which of the following emotions would you feel?

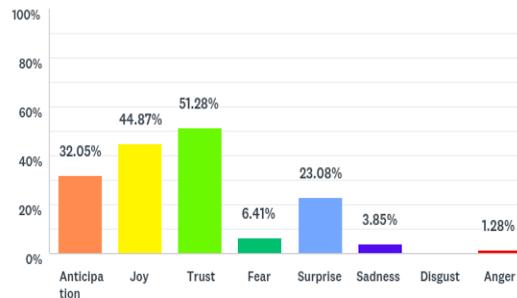


Figure 19: Emotions felt during the post-test (Treatment group 1)

In Group 1, approximately half of the respondents (51,28%) indicated that they felt trust and 44,87% said that they felt joy (See Figure 19). Comparing the results to the results of the pre-test, it can be stated that the level of trust increased drastically, whereas the feeling of anticipation and joy have slightly decreased. Interestingly, there was a decrease of 14,45% in the expressed feeling of fear. This finding is important for the study as shows that the level of uncertain negative feelings has decreased after the application of treatment.

Feelings of sadness and anger have also reduced comparing to the pre-test, moreover, there were no respondents in Group 1 that stated that they have felt disgust. The expressed feeling of surprise has remained on the same level.

Q5 After seeing the post, how likely is that you will apply to this university?

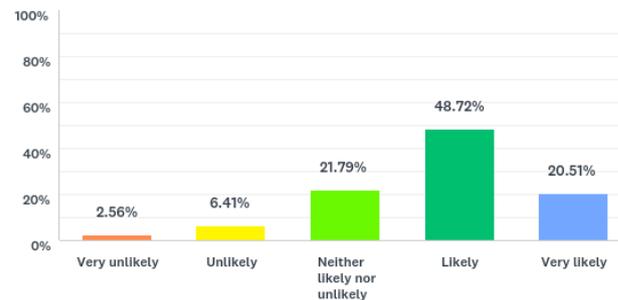


Figure 20: Likelihood of the application to the university in the post-test (Treatment group 1)

In response to the question, where the respondents were asked to evaluate their likelihood of the application to the university (see Figure 20), the majority has indicated that it is likely (48,78%) that they would apply to the university and 20,51% said that it is very likely. In total, 8,97% of the participants have answered negatively by stating that their application to the university is unlikely or very unlikely. However, surprisingly, 21,79% of the respondents have not decided if they would or would not apply. Comparing to the results of the pre-test, the amount of people who have not decided increased by 9,37%. For the Group 1, the mean in the second question was equal to 3,78; thus, it is observed that there is a slight decrease in the likelihood of application comparing to the pre-test.

6.3.2. Treatment Group 2

The second group was shown the Instagram post with the image of the university – Treatment 2. The sample of the Group 2 included 69 respondents that answered both questions of the post-test.

Figure 21 visualizes answers of the respondents, belonging to the Group 2, who have expressed their emotions after the application of the treatment.

Q6 After seeing this post, imagine yourself thinking of Silver Lake University as of one of the university options and making your decision. Which of the following emotions would you feel?

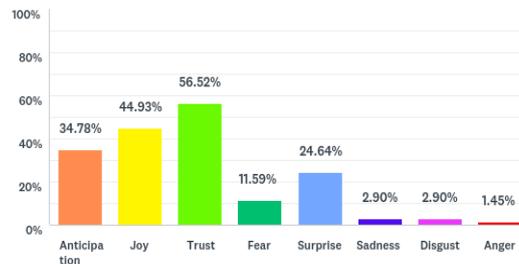


Figure 21: Emotions felt during the post-test (Treatment group 2)

It can be seen that, in comparison to the pre-test and post-test of Group 1, the level of expressed feeling of trust is the highest in this case – 56,62%. Joy, anticipation and surprise were felt by the respondents of the second group similarly to the participants of Group 1 – 44,93%, 34,78% and 24,64% respectively. Nevertheless, level of expressed feeling of fear was higher in case of Group 2 than Group 1 with 5,12% difference. Moreover, the level of disgust was the highest for the Group 2 comparing to the pre-test and post-test of the Group 1.

Q7 After seeing the post, how likely is that you will apply to this university?

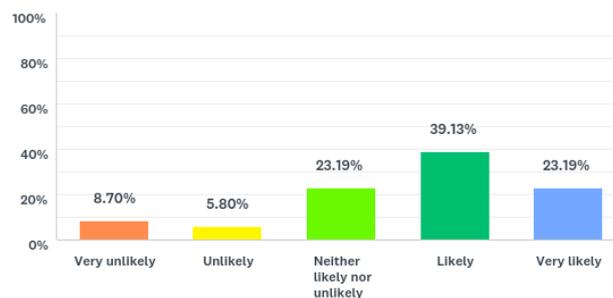


Figure 22: Likelihood of the application to the university in the post-test (Treatment group 2)

Regarding likelihood of the application to the university, in case of the Group 2 (See Figure 22), it was found that 39.13% of the respondents answered that their application to the university after seeing the post (Treatment 2) is likely, and for 23.19% of respondents – highly likely. In this case, respondents who did not decide (neither likely nor unlikely) equaled to 23.19%, which is a higher value in comparison to Group 1.

However, comparing to Group 1, more respondents of the Group 2 answered that their application to the university is unlikely (5.80%) or very unlikely (8.70%).

6.4. Hypotheses testing

Testing of the secondary hypotheses and correlation between emotions and likelihood of application to the university is necessary in this study in order to provide the answer to the main hypotheses. Thus, the researcher has executed statistical testing of the hypotheses mentioned previously by using inferential statistical tests provided by SPSS software as well as descriptive statistics.

6.4.1. Correlation testing

Firstly, the researcher has tested correlation between each of the eight evaluated emotions and likelihood of application to the university for the pre-test sample of respondents in order to identify the emotions that can significantly influence consumer behaviour of the potential applicants. Spearman correlation test in SPSS was chosen and performed separately for each emotion and likelihood to apply. The researcher has chosen Spearman correlation test since the variables compared in the test are ordinal.

Table 7 illustrates the SPSS output that shows the significance of the correlation between the *anticipation* felt by the respondent and the *likelihood to apply to the university*.

Correlations				
			Likelihood of application to the university	Q1Anticipation
Spearman's rho	Likelihood of application to the university	Correlation Coefficient	1,000	,172*
		Sig. (2-tailed)	.	,034
		N	153	153
	Q1Anticipation	Correlation Coefficient	,172*	1,000
		Sig. (2-tailed)	,034	.
		N	153	153

*. Correlation is significant at the 0.05 level (2-tailed).

Table 7: Correlation between likelihood to apply and anticipation

The results of the test show that there is a statistically significant positive correlation between two variables ($p < 0.05$). Therefore, the increase in the level of anticipation will cause the increase in the likelihood of application to the university.

The impact of *joy* on the likelihood to apply was also proved to be positive after the Spearman correlation test was performed. Table 8 shows that the p-value is $0.001 < 0.05$, and, thus, there is a strong significance in correlation of two tested variables.

Correlations				
			Likelihood of application to the university	Q1Joy
Spearman's rho	Likelihood of application to the university	Correlation Coefficient	1,000	,278**
		Sig. (2-tailed)	.	,001
		N	153	153
	Q1Joy	Correlation Coefficient	,278**	1,000
		Sig. (2-tailed)	,001	.
		N	153	153

** . Correlation is significant at the 0.01 level (2-tailed).

Table 8: Correlation between likelihood to apply and joy

Correlation coefficient equals 0.278, which means that the correlation is positive, and, therefore, an increase in joy felt by the potential student will increase the likelihood of his/her application to the university.

Another positive correlation was detected between the likelihood to apply and trust. Table 9 represents the outcomes of the Spearman test for these variables.

Correlations				
			Likelihood of application to the university	Q1Trust
Spearman's rho	Likelihood of application to the university	Correlation Coefficient	1,000	,163*
		Sig. (2-tailed)	.	,045
		N	153	153
	Q1Trust	Correlation Coefficient	,163*	1,000
		Sig. (2-tailed)	,045	.
		N	153	153

*. Correlation is significant at the 0.05 level (2-tailed).

Table 9: Correlation between likelihood to apply and trust

Nevertheless, the p-value in this case equals 0.045 and, therefore, even though the correlation is significant, the significance level is low.

The correlation tests were also executed for fear, surprise, sadness, disgust and anger, however, surprisingly, there was no significant correlation observed for these variables, as the p-value for all of them exceeded 0.05 (fear: $p=0.349>0.05$; surprise: $p=0.137>0.05$; sadness: $p=0.255>0.05$; disgust: $p=0.905>0.05$; anger: $p=0.978>0.05$). Nevertheless, when correlation was tested for negative emotions, such as fear, sadness, anger and disgust, the correlation coefficient showed negative correlation. Thus, if the correlation would be significant, the increase in these emotions felt by the applicant would result in the decrease in the likelihood to apply. The outputs for all Spearman correlation tests can be found in Appendix 4.

6.4.2. Secondary hypotheses testing

The correlation tests proved that *anticipation* and *joy* have significant correlation with the likelihood to apply to the university. However, it is also necessary to test the secondary hypotheses in order to clarify how various emotions felt by the participants differed after the application of two treatments. Researcher has used SPSS software for testing the secondary hypotheses.

As emotions felt by the respondents are dependent variables in this experiment, the researcher aimed to perform the test for two related samples to identify the differences between different emotions in the pre-test and post-test: Wilcoxon signed-rank test or paired samples t-test. To begin with, the researcher tested whether the normal distribution of the differences between two variables exists. Therefore, for each of the eighteen secondary hypotheses, researcher has created a histogram of the differences between the two variables to visually evaluate the distribution on normality. The histograms have shown that the variable containing the differences does not look normally distributed. However, the optical impression could be mistaken and, thus, the researched decided to proceed with testing the normal distribution and performed Kolmogorow-Smirnow for each of the variables. Firstly, hypotheses for Kolmogorow-Smirnow test for each of the variables were formulated:

H0: No significant violation of the normal distribution assumption.

H1: Significant violation of the normal distribution assumption.

Table 9 illustrates the example of the K-S test performed for the Anticipation variable. It shows that $p\text{-value}=0.000<0.05$ (significant) and, therefore, the H0 must be rejected and H1 accepted.

One-Sample Kolmogorov-Smirnov Test		
		Q1Anticipatio n
N		153
Normal Parameters ^{a,b}	Mean	,43
	Std. Deviation	,497
Most Extreme Differences	Absolute	,376
	Positive	,376
	Negative	-,305
Test Statistic		,376
Asymp. Sig. (2-tailed)		,000^e
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Table 10: Kolmogorow-Smirnow test, Anticipation variable

The illustrated example has repeated for all other variables tested. Thus, researcher decided to run Wilcoxon signed-rank test in order to identify the differences as this test does not assume normal distribution and is non-parametric.

Outputs of the Wilcoxon signed-rank test are provided in Table 10 and Table 11. Table 10 illustrates Wilcoxon test output identifying the significance of the differences between emotions felt during the pre-test and post-test, after the application of Treatment 1 – post, representing student of the Silver Lake University.

Test Statistics ^a								
	Q4Anticipatio n - Q1Anticipatio n	Q4Joy - Q1Joy	Q4Trust - Q1Trust	Q4Fear - Q1Fear	Q4Surprise - Q1Surprise	Q4Sadness - Q1Sadness	Q4Disgust - Q1Disgust	Q4Anger - Q1Anger
Z	-2,466 ^b	-2,160 ^b	-3,592 ^c	-2,324 ^b	-,577 ^c	,000 ^d	-1,000 ^b	-1,000 ^b
Asymp. Sig. (2-tailed)	,014	,031	,000	,020	,564	1,000	,317	,317

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

d. The sum of negative ranks equals the sum of positive ranks.

Table 11: Comparison of 8 tested emotions: pre-test and post-test (Treatment 1 application).

Results indicate that the significant difference after the application of Treatment 1 was found in following emotions felt by the participants:

anticipation ($p=0.014<0.05$), *joy* ($p=0.031<0.05$), *trust* ($p=0<0.05$), and *fear* ($p=0.02<0.05$). Therefore, H0 can be rejected and H1 can be accepted for the following hypotheses:

- 1) **H1 (accepted):** There is a difference in number of respondents who felt *anticipation* during the pre-test and post-test after the application of Treatment 1.
- 2) **H1 (accepted):** There is a difference in number of respondents who felt *joy* during the pre-test and post-test after the application of Treatment 1.
- 3) **H1 (accepted):** There is a difference in number of respondents who felt *trust* during the pre-test and post-test after the application of Treatment 1.
- 4) **H1 (accepted):** There is a difference in number of respondents who felt *fear* during the pre-test and post-test after the application of Treatment 1.

Table 10 also shows, that for other emotions, such as surprise, sadness, disgust and anger, there was no significant difference identified between pre-test and post-test (Treatment 1), as p-value for all these cases equaled $p>0.05$.

Thus, H0 must be maintained for the following hypotheses:

- 5) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *surprise* during the pre-test and post-test after the application of Treatment 1.
- 6) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *sadness* during the pre-test and post-test after the application of Treatment 1.
- 7) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *disgust* during the pre-test and post-test after the application of Treatment 1.
- 8) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *anger* during the pre-test and post-test after the application of Treatment 1.

Test Statistics ^a								
	Q6Anticipation - Q1Anticipation	Q6Joy - Q1Joy	Q6Trust - Q1Trust	Q6Fear - Q1Fear	Q6Surprise - Q1Surprise	Q6Sadness - Q1Sadness	Q6Disgust - Q1Disgust	Q6Anger - Q1Anger
Z	-1,976 ^b	-1,897 ^b	-3,683 ^c	-1,213 ^b	-,392 ^c	-,447 ^b	-,577 ^c	,000 ^d
Asymp. Sig. (2-tailed)	,048	,058	,000	,225	,695	,655	,564	1,000

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

d. The sum of negative ranks equals the sum of positive ranks.

Table 12: Comparison of 8 tested emotions: pre-test and post-test (Treatment 1 application).

Table 11 represents the outputs of Wilcoxon signed-rank tests for the comparison of two related samples: emotions felt by the respondents during the pre-test and post-test after application of Treatment 2 – post, illustrating the university building. By analyzing the significance coefficient (p-value), the researcher can reject or accept H0 for the remaining secondary hypotheses.

In this case, the results of the test state that there is a significant difference between 2 out of 8 emotions felt by the respondents in pre-test and post-test (Treatment 2): *anticipation* ($p=0.048<0.05$) and *trust* ($p=0<0.05$). Nevertheless, it has to be said that the p-value for comparison of anticipation emotion samples is close to 0.05, which indicates that the difference exists when there is no actual difference. By that, the significance of difference between anticipation felt in pre-test and post-test (Treatment 2) is questionable. As a result, for Treatment 2 application, H1 can be accepted and H0 rejected for the following hypothesis:

- 9) **H1 (accepted):** There is a difference in number of respondents who felt *trust* during the pre-test and post-test after the application of Treatment 1.
- 10) **H1 (accepted):** There is a difference in number of respondents who felt *anticipation* during the pre-test and post-test after the application of Treatment 1.

Simultaneously, H0 must be maintained for the following hypotheses:

- 11) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *joy* during the pre-test and post-test after the application of Treatment 1.
- 12) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *fear* during the pre-test and post-test after the application of Treatment 1.
- 13) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *surprise* during the pre-test and post-test after the application of Treatment 1.
- 14) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *sadness* during the pre-test and post-test after the application of Treatment 1.
- 15) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *disgust* during the pre-test and post-test after the application of Treatment 1.
- 16) **H0 (maintained, H1 rejected):** There is no difference in number of respondents who felt *anger* during the pre-test and post-test after the application of Treatment 1.

To test remaining two hypotheses on the difference in likelihood to apply to the university between the pre-test sample, post-test (Treatment 1) sample and post-test (Treatment 2) sample, the researcher has performed another Wilcoxon signed-rank test, as the normality of the distribution was not detected (both histogram and Kolmogorow-Smirnow test). Table 12 and Table 13 present the outputs of SPSS software on the performed test and significance coefficients.

Test Statistics^a	
	Likelihood to apply (post-test Treatment 1) – Likelihood to apply (pre-test)
Z	-,475b
Asymp. Sig. (2-tailed)	,634
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Table 13: Comparison of likelihood to apply in the pre-test and post-test (Treatment 1)

Table 12 illustrates the results of the Wilcoxon test performed to identify the significance of the difference between the likelihood to apply in the pre-test and post-test, after the application of Treatment 1. The represented results show that $p=0.634>0.05$ and, hence, it can be stated that the difference in likelihood to apply after application of Treatment 1 is not significant. By that, H1 must be rejected and H0 maintained:

17) **H0 (maintained, H1 rejected):** There is no difference in likelihood to apply to the university during the pre-test and post-test after the application of Treatment 1)

Test Statistics ^a	
	Likelihood to apply (post-test Treatment 2) – Likelihood to apply (pre-test)
Z	-1,749b
Asymp. Sig. (2-tailed)	,080
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Table 14: Comparison of likelihood to apply in the pre-test and post-test (Treatment 2)

Table 13 represents the SPSS output of Wilcoxon test that identified the significance of the difference between likelihood to apply in pre-test and post test, after the application of Treatment 2. In this case, $p=0.08>0.05$ and, by that, it can be stated that the significance of the difference between two variables was not proved. Therefore, H0 must be maintained and H1 rejected for the following hypothesis:

18) **H0 (maintained, H1 rejected):** There is no difference in likelihood to apply to the university during the pre-test and post-test after the application of Treatment 2)

6.5 Quantitative results

In this section researcher summarized the quantitative results of this study obtained by conducting quasi-experiment, the outcomes of which were analysed by using descriptive and inferential statistics. The major quantitative findings are:

- 1) Spearman correlation tests performed to identify the correlation between likelihood to apply to the university and eight emotions tested in quasi-experiment (pre-test sample) showed that only such emotions as *anticipation, joy, and trust* have a significant effect on the likelihood of application. However, the identified correlation can only show the relation between variables, but cannot prove the causation or influence of these emotions on the likelihood to apply.

- 2) Wilcoxon signed-rank test run by the researcher to detect the significance in differences between eight emotions in pre-test and post-tests for both treatment groups showed that:
 - In post-test (Treatment 1) the following emotions were significantly different comparing to the pre-test: *anticipation, joy, trust and fear*.
 - In post-test (Treatment 2) following emotions differed significantly from the pre-test: *anticipation* and *trust*.

- 3) Wilcoxon tests performed to detect the significance of the difference in likelihood to apply in the pre-test and post-test for both groups showed that there is no significant difference in likelihood to apply before and after application of the treatment in both cases.

- 4) From descriptive statistics it is possible to conclude that the differences in emotions in pre- and post-tests identified by Wilcoxon test can be interpreted in a following way:
 - Pre-test and post-test (Treatment 1):
 - There is a significant decrease in the level of anticipation felt in the post-test (Treatment 1) comparing to pre-test;
 - There is a significant decrease in the level of joy felt in the post-test (Treatment 1) comparing to pre-test;
 - There is a significant increase in the level of trust felt in the post-test (Treatment 1) comparing to pre-test;

- There is a significant decrease in the level of fear felt in the post-test (Treatment 1) comparing to pre-test
- Pre-test and post-test (Treatment 2):
 - There is a significant decrease in the level of anticipation felt in the post-test (Treatment 2) comparing to pre-test;
 - There is a significant increase in the level of trust felt in the post-test (Treatment 2) comparing to pre-test.

After testing the secondary hypotheses, the researcher is able to accept or reject main hypotheses of the experiment.

According to the tested secondary hypotheses (1,2,3,4,9,10), which prove that there is a significant difference between specific tested emotions in the pre- and post-tests, for the following main hypothesis H0 can be rejected and H1 accepted:

H1 (accepted): There is an influence of social media content on emotions of the potential graduate students.

With regard to the results of testing the secondary hypotheses 17 and 18, the researcher H0 has to be maintained and H1 rejected for the following main hypothesis:

H0 (maintained, H1 rejected): There is an influence of social media content on likelihood of application to the university of potential graduate students.

The research sub-question designed for the experimental research will be answered according to the quantitative results in the discussion section of the study.

7. Discussion of the Results

7.1. Interpretation of the results

7.1.1. Research Sub-Questions

This section of the study provides the interpretation and discussion of the results of this research obtained by executing qualitative and experimental studies. Four research sub-questions as well as the main research question of the study are answered and explained in this section.

7.1.1.1. Research Sub-Question 1: What is a potential graduate student's typical customer journey for university selection? (Method: Customer Journey Mapping)

The customer journey of the potential graduate applicant starts with the stimulus during the awareness phase, when the potential student is becoming aware of the university from the various sources, such as WoM, (family members, current students, friends), search engines, educational agencies etc. The customer journey mapping showed that during this phase potential students might be looking for additional motivating factors that would push them to start considering the application, or, on the contrary, feel distant and not belonging to the university due to different reasons, such as location, price or rating of the institution. In the awareness phase, potential applicant usually experience positive emotions – calmness, serenity, excitement, and curiosity. However, the individuals that do not feel related to the university might experience negative emotions like insecurity, tension and stress.

Further, potential applicant's customer journey proceeds with consideration phase. The research has identified that this phase is the most intense period in the path of the potential student, as it includes crucial events and touch points between the individual and the university, which often lead to the negative emotions of the individual. During the consideration phase, potential applicant experiences Zero Moment of Truth that can also be

characterized as the beginning of the actual purchase or, in this case, application path. In most cases, in the consideration phase applicant is comparing different universities according to the factors that are considered as the most important. Some of the factors mentioned by the respondents during customer journey mapping are the location, price, language of studies, exchange options, duration of the admission process, rating of the university, and student/faculty ratio. In this phase, potential applicants communicate with educational agencies, admission offices, alumni, and current students. High importance of the decision and responsibility together with the activities performed during the consideration phase in most cases lead individuals to experience various negative emotions. Most often than other emotions respondents mentioned fear, tension, frustration, anxiety, insecurity and doubt felt during this phase.

When the potential applicant has made her/his choice between the existing universities-options, he/she proceeds to the decision phase of the customer journey. Research identified that, in most cases, the respondents perceive this phase positively; however, during this period of time, the potential applicant is looking for the factual information provided by the university in order to make the final decision and to assure him-/herself that the decision that was made is right. Moreover, in decision phase most of the potential applicants contact their parents to ask for the financial support or prepare savings plan. Thus, the most requested information in this period of time is related to tuition fees or scholarship opportunities.

Last but not least, when the decision to apply to the university is made, customer journey continues with the application (purchase) phase. Potential applicants often feel excited and relieved during the application phase.

7.1.1.2. Research Sub-Question 2: When and how do social media communications intervene in the university selection process? (Method: Customer Journey Mapping)

Surprisingly, from the results of the customer journey mapping it can be seen that the respondents checked very few social media resources of the

university in the process of selection of university. Moreover, most of the students prioritized official website over social media accounts while searching for the necessary information. It can be assumed that this unexpected result might be affected by the relatively small sample of the interviewees. Nevertheless, the respondents, that stated that they have looked at the social media profiles of the university during their customer journey, checked the Facebook page of the university in most of the cases. Interestingly, it was mentioned that potential students are willing to see more unofficial informal content on the Facebook profile of the university that includes student life information and entertaining content rather than formal articles that they would expect to see on the main website of the institution. Also, some of the interviewed students indicated that they have browsed the YouTube videos of the university in order to create a feeling of belonging.

It is important to state that students prefer to get acquainted with the social networks of the university mainly during consideration and decision phases, whereas they tend to check the official website of the university mainly during the awareness and consideration phases.

Therefore, it can be claimed that students are looking for the social network profiles of the university in the process of selection (awareness, consideration, decision phases) in order to get familiar with the student life and studying environment.

7.1.1.3. Research Sub-Question 3: What effects does social media content have on the emotions of the potential graduate? (Methods: Customer Journey Mapping and Experimental Research)

This research sub-question was composed to be answered by combining two different research methods – customer journey mapping and experimental research. During the process of customer journey mapping it was investigated that seeing social media content related to the student life increases confidence and security of the potential student and, simultaneously, reduces the level of anxiety during the consideration phase.

Therefore, it can be assumed that these changes might be caused by the increase in the level of trust – one of the core emotions of the Plutchik's wheel, which was tested during the experimental research.

The qualitative findings were partially supported in the results of quasi-experiment, conducted by the researcher. However, some statements, proved by the experiment, were unexpected for the researcher. The outcomes of the quantitative study and hypotheses testing showed that social media content that is designed in a more informal and personalised way, and translates student life, increases the level of trust and decreases the level of fear felt by the potential applicant. This finding confirms the earlier assumptions that the usefulness of this type of social media content in minimizing uncertain negative emotions, such as fear and its variations - anxiety and apprehension. On the contrary, during the experimental research it was implied that informal social media content decreases the level of joy and anticipation – emotions that have a strong effect on the application to the university. The researcher assumes that the reason for this unexpected result might be in the internal threat to validity of the experiment that will be discussed in the limitations section.

Another type of social media content tested during the experiment was designed in the more formal and informative way with the intention to provide the student with the factual information, however, was not expected to significantly change levels of emotions. Nevertheless, the results of the study present that factual content tends to decrease the level of anticipation and increase the level of trust.

Therefore, to summarize the outcomes of the study, and answer this research sub-question, it has to be said that, on the one hand, qualitative and quantitative findings have partially supported each other, but, on the other hand, have drastically contradicted to each other. In this way, although the customer journey mapping showed that the social media content improves positive and minimized negative emotions, the outcomes of the experimental research showed that in both cases seeing social media content decreases the level of anticipation of potential applicant, and in case of the

informal content, also decreases joy. Nevertheless, the statistical finding stating that in both cases social media content significantly increased level of trust, and in one of the cases decreased fear, supports the previous expectations and outcomes of the customer journey mapping.

7.1.1.4. Research Sub-Question 4: *How does social media content influence emotions of the potential graduate students and, consequently, their likelihood of application to the university?*

Results of the statistical tests that identified the differences between likelihood of application of potential graduate student prove that social media content, presented to two groups during the quasi-experiment, did not impact their likelihood to apply, as the significance of the differences between variables was not supported. However, levels of several tested emotions, felt by the respondents after application of the treatments, significantly differed from levels of the same emotions, felt in the pre-test. To illustrate, after seeing the social media content that was designed to create a feeling of belonging and personal approach to the respondent – Treatment 1 – level of anticipation and joy felt by the respondents has significantly decreased, and, simultaneously, there was a significant increase in the level of trust. Moreover, after seeing the post (T1), there was a significant decrease in the level of fear that proved the expectation of minimizing the level of uncertain negative feelings. In contrast to the application of Treatment 1, for the respondents of the Group 2 that have seen another post (Treatment 2) that was designed to provide the factual information and was not expected to influence the emotions, only two emotions were significantly different from the pre-test: level of trust has significantly increased, whereas level of anticipation has decreased.

As proved by the outputs of the correlation test, *anticipation*, *joy*, and *trust* significantly affect the likelihood of application to the university. However, in both cases (Treatment 1 and Treatment 2) level of anticipation and joy had no significant increase, but, on the contrary, in both cases, there was a significant decrease in level of anticipation. Nevertheless, both of the social media posts have significantly increased the level of trust.

To conclude, it has to be said that, contrary to expectations, the quasi-experiment performed by the researcher did not prove the influence of the social media posts on the likelihood of application to the university.

7.1.2. Main Research Question

Research Question: How do social media communications of universities affect the impressions of prospective graduate students about the university?"

Based on the interpretation of the four research sub-questions, the researcher is able to answer the main question of the study. The impression of the university, measured in this study, represents the combination of the negative or positive emotional change caused by the social media communications and the change in the likelihood to apply to the university.

The secondary research conducted in the literature review claimed that social media communications create an early sense of belonging to the university and facilitate co-creation of the mutual experience (Rutter and Ropper, 2016; Reuben, 2016; Fagestrom and Ghinea, 2013; Clark et al, 2017). However, existing research does not provide any explicit explanation on the causalities of such events. Therefore, by means of the exploratory sequential mixed methods design – customer journey mapping followed by the experimental research – the researcher interprets the secondary research on the effect of social media communications on the prospective graduate students in their selection process. The findings of qualitative study imply that emotions of the potential student change after seeing social media posts of the university in a positive way, as the applicants become happier, more secure and less anxious.

During the experimental research, following findings were made:

- 1) More informal, interactive and student life oriented social media content lowers level of fear felt by the potential applicant. It can be

assumed, that it is caused by the reduction in negative uncertainty feeling experienced by the student.

- 2) At the same time, surprisingly, more informal content may reduce joy felt by the potential applicant.
- 3) More emotionally neutral, factual, and formal content does not significantly affect such emotions as joy, fear, surprise, sadness, disgust and anger, and their variations.
- 4) In general, social media communications of the university enhance trust to the university and, therefore, cause feeling of security and safety as well as reduce uncertainty.
- 5) Unexpectedly, research outcomes state that there is no significant change in likelihood of application to the university before and after seeing the social media content and, thus, another surprising finding of this research implies that the social media communications do not directly impact the likelihood to apply.

Thus, summarizing mentioned above, it is possible to conclude that social media communications affect the impression of the potential applicant about the university in different ways: by negatively or positively influencing emotions, decreasing uncertainty, and developing trust. Nevertheless, the relation between impact of social media content and likelihood of the potential graduate student to apply to the university was not proved by the quantitative research. By that, the impact of the social media communications on the university recruitment can be only partially supported considering the emotional change, however, cannot be proved, as the likelihood of application was not directly affected.

7.2. Recommendations

Even though not all of the outcomes of the research met the expectations of the researcher or proved the secondary research findings, the results of the

study can be successfully implemented in university marketing strategies and facilitate the recruiting process. The research results can be useful for the marketing and recruitment departments in order to understand the linkage between the content of the posts and the customer journey of the potential graduate. Following recommendations and suggestions to the universities can be made based on this research:

- 1) It is recommended to develop the content strategy for the university social media page by combining formal and informal content and mixing themes such as student life related topics (clubs, alumni success, internship stories etc.) and factual information on the university (e.g. financial aid, scholarships, location, research).
- 2) According to the customer journey mapping, it is recommended to focus on the applicants that are currently in their consideration and decision phases, when designing social media content for the university social profile.
- 3) It is recommended to enhance the feeling of belonging and co-creation of the content by incorporating the concept of brand intimacy into the social media marketing strategy. It can be done by using storytelling and generating brand experience around the university brand.

7.3. Limitations and future research

7.3.1. Limitations

It is plausible that a number of limitations might have influenced the findings obtained in this research. First, the lack of random selection to the experiment sample and usage of the non-probability purposive sampling method limits the potential of generalization of the outcomes of the research to the real life setting and larger population. Second, internal and external threats to validity could have potentially impacted the procedure and outcomes of the conducted quasi-experiment. The researcher assumes that the answers of the participants during the post-test might have been

influenced by the fact, that knowing their responses in the pre-test, respondents consciously tried to differentiate their answers with the responses in the post-test to avoid repetitiveness. Third, the external factors, such as emotions and moods that the respondents encountered prior to the experiment, might also have had an influence on the results. (Cook et al, 1990). Forth, differences in sizes of samples in the post-tests could modify the results of the statistical tests conducted during analysis of quantitative data. Fifth, the differences in sample sizes between samples of participants of customer journey mapping and quasi-experiment may distort the research conclusion made by the researcher.

7.3.2. Future Research

Current research proves that even though the importance of the social media marketing impact on the university recruitment is ambiguous, the influence of the social media content on emotions of the potential student exists. By that, use of social media marketing, as one of the components of the successful recruitment strategy could be beneficial to consider. In order to continue developing the topic of this study and facilitate the strategy development for university recruitment and marketing departments, findings suggests following opportunities for the future research:

1) *International and multicultural focus:*

This study was conducted among the respondents studying in Europe; nevertheless, the differences between cultures might influence perceptions of the potential applicants regarding various social media content and, thus, it is suggested to expand this research by conducting the same study among other cultural groups.

2) *Public sector:*

Participants of the customer journey mapping in this study were students of the private universities. It is proposed that the future research should be undertaken by conducting similar customer journey mapping procedure among students of the public universities in order to compare the differences in the outcomes of

both studies.

3) *Content strategy development:*

Future studies on the current topic are suggested in order to test the impact of different themes of the social media content and their impact on the perceptions of the potential students and, consequently, combine the findings into the suggested content strategy for the university marketing department.

4) *Validation of the findings*

As the outcomes of the quantitative study were to some extent contradictory to the previous research and qualitative results of this research, it is recommended to validate the findings by a larger sample size and minimized threats to internal and external validity.

Bibliography:

Aaker, D. A., & Biel, A. L. (2013). *Brand equity & advertising: advertising's role in building strong brands*. Psychology Press.

Agrey, L., & Lampadan, N. (2014). Determinant factors contributing to student choice in selecting a university. *Journal of Education and Human Development, 3*(2), 391-404.

Al-Fattal, A. (2010). *Understanding student choice of university and marketing strategies in Syrian private higher education*. University of Leeds.

Anderson, P. (1999). Factors influencing student choice in higher education. *Perspectives: Policy & Practice in Higher Education, 3*(4), 128-131.

Ashman, R., Solomon, M. R., & Wolny, J. (2015). An old model for a new age: Consumer decision making in participatory digital culture. *Journal of Customer Behaviour, 14*(2), 127-146.

Bagozzi, R. P., Gopinath, M., & Nyer, P. U. (1999). The role of emotions in marketing. *Journal of the academy of marketing science, 27*(2), 184.

Barcelos, R., Dantas, D., Sénécal, S., & Rossi, C. (2016). The Effect of Brand Intimacy on Consumer Responses: An Application on a Social Media Context. *In Rediscovering the Essentiality of Marketing* (pp. 209-214). Springer, Cham.

Beswick, R. L. (1989). *A study of factors associated with student choice in the university selection process* (Doctoral dissertation, Lethbridge, AB: University of Lethbridge, Faculty of Education, 1989).

Blackston, M. (1993). *Beyond brand personality: building brand relationships*. Brand equity and advertising: Advertising's role in building strong brands, 113-124.

Blackston, M. (2000). Observations: Building brand equity by managing the brand's relationships. *Journal of Advertising Research*, 40(6), 101-105.

Clark, M., Fine, M. B., & Scheuer, C. L. (2017). Relationship quality in higher education marketing: the role of social media engagement. *Journal of Marketing for Higher Education*, 27(1), 40-58.

Content & Higher Education: 5 Successful Campaigns to Learn From. (2019). *Digital Marketing Institute*.

Retrieved from <https://digitalmarketinginstitute.com/en-eu/blog/04-04-18-content-higher-education-5-successful-campaigns-to-learn-from> on March 30, 2019

Content Marketing for Education Companies (2019). *Single Grain*. Retrieved from <https://www.singlegrain.com/res/marketing-guide-for-online-educational-companies/content-marketing/> on March 30, 2019

Content Marketing Institute (2018). Content Management and Strategy Survey Report. Retrieved from <https://contentmarketinginstitute.com/wp-content/uploads/2018/05/2018-content-management-strategy-survey-research.pdf> on December 2, 2018

Constantinides, E., & Zinck Stagno, M. C. (2011). Potential of the social media as instruments of higher education marketing: a segmentation study. *Journal of marketing for higher education*, 21(1), 7-24.

Cook, T. D., Campbell, D. T., & Peracchio, L. (1990). *Quasi experimentation*.

Court, D., Elzinga, D., Mulder, S., Vetvik, O.J. (2009). The consumer decision journey. *McKinsey & Company*.

Retrieved from <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-consumer-decision-journey> on March 10, 2019

Draper, M. (2017). What are the Five Moments of Truth in Marketing? *Liferay*. Retrieved on April, 16 from <https://www.liferay.com/blog/en-us/customer-experience/what-are-the-five-moments-of-truth-in-marketing->

Drucker, P. (2016). *The effective executive*. Routledge.

Durkin, M., McKenna, S., & Cummins, D. (2012). Emotional connections in higher education marketing. *Journal of Educational Management*, 26(2), 153-161.

Edelman, D. C., & Singer, M. (2015). Competing on customer journeys. *Harvard Business Review*, 93(11), 88-100.

Elliott, K. M., & Healy, M. A. (2001). Key factors influencing student satisfaction related to recruitment and retention. *Journal of marketing for higher education*, 10(4), 1-11.

Engel, J.F., Kollat, D.T., & Blackwell, R.D. (1968). *Consumer Behaviour*. New York: Rinehart & Winston.

Evans, D. (2010). *Social media marketing: An hour a day*. John Wiley & Sons.

Fagerstrøm, A., & Ghinea, G. (2013). Co-creation of value in higher education: using social network marketing in the recruitment of students. *Journal of Higher Education Policy and Management*, 35(1), 45-53.

Greenhow, C. (2011). Youth, learning, and social media. *Journal of Educational Computing Research*, 45(2), 139-146.

Hansen, F. (1972) *Consumer Choice Behavior: A Cognitive Theory* (The Free Press, New York).

Hansen, F., Percy, L., & Hansen, M. H. (2004). *Consumer choice behaviour: An emotional theory*.

Higher Education Student Recruitment, Selection and Admission Policy. (2017). *Havering College*. Retrieved from <https://www.havering-college.ac.uk/images/the-college/pdf/Higher-Education-Student-Selection-Admissions-Policy-Feb-2017.pdf> on March 4, 2019

How to choose the best digital marketing channel for your business , (2018). *Social Media Today*. Retrieved from <https://www.socialmediatoday.com/news/how-to-choose-the-best-digital-marketing-channel-for-your-business-infogra/517465/> on March 10, 2019

Jaakonmäki, R., Müller, O., & vom Brocke, J. (2017, January). The impact of content, context, and creator on user engagement in social media marketing. *In Proceedings of the 50th Hawaii international conference on system sciences*.

Johnston, T. C. (2010). Who and what influences choice of university? Student and university perceptions. *American Journal of Business Education*, 3(10), 15-24

Kahneman, D. (2011). *Thinking, fast and slow*. New York, NY, US: Farrar, Straus and Giroux.

Khatri, C., Chapman, S. J., Glasbey, J., Kelly, M., Nepogodiev, D., Bhangu, A., ... & STARSurg Committee. (2015). Social media and internet driven study recruitment: evaluating a new model for promoting collaborator engagement and participation. *PloS one*, 10(3), e0118899

Kumar, V., & Mirchandani, R. (2012). Increasing the ROI of social media marketing. *MIT sloan management review*, 54 (1), 55

Kusumawati, A. (2013). A qualitative study of the factors influencing student choice: The case of public university in Indonesia. *Journal of Basic and Applied Scientific Research*, 3(1), 314-327.

Lecinski, J. (2011). *Winning the zero moment of truth. Zero Moment of Truth.*

Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69-96.

Leone, L., Perugini, M., & Bagozzi, R. (2005). Emotions and decision making: Regulatory focus moderates the influence of anticipated emotions on action evaluations. *Cognition & Emotion*, 19(8), 1175-1198.

Lerner, J.S. and Keltner, D. (2000), "Beyond valence: toward a model of emotion-specific influences on judgment and choice", *Cognition and Emotion*, Vol. 14 No. 4, pp. 473-93.

Mellers, B. A., & McGraw, A. P. (2001). Anticipated emotions as guides to choice. *Current directions in psychological science*, 10(6), 210-214.

Navarelli, M. (2018). The principles of brand intimacy. *Branding Strategy Insider*. Retrieved from <https://www.brandingstrategyinsider.com/2018/04/the-principles-of-brand-intimacy.html#.XJ4RvS2ZPUo> on March 29, 2019

Nelson, E. & Ellison, S. (2005). In a Shift, Marketers Beef Up Ad Spending Inside Stores. *The Wall Street Journal*.

Retrieved from <https://www.wsj.com/articles/SB112725891535046751> on April, 10

Noel-Levitz, I. (2007). E-Expectations Class of 2007 Report: Building an E-Recruitment Network: 7

Plutchik, Robert (1980), Emotion: Theory, research, and experience: *Vol. 1. Theories of emotion, 1*, New York: Academic

Prove your Impact: The 2017 Digital Marketing Analytics Performance Report (2017). *TrackMaven*. Retrieved from <https://trackmaven.com/blog/digital-marketing-analytics-benchmarks-report/> on March 10, 2019

Raghunathan, R. and Corfman, K.P. (2004), "Sadness as pleasure-seeking prime and anxiety as attentiveness prime: the 'different affect-different effect' (DADE) model", *Motivation and Emotion*, Vol. 28 No. 1, pp. 23-41.

Reuben, R. (2008). The use of social media in higher education for marketing and communications: A guide for professionals in higher education.

Rocha, A. S. T. (2018). Factors behind a Higher Education institution choice by Portuguese students.

Rosenbaum, M. S., Otalora, M. L., & Ramírez, G. C. (2017). How to create a realistic customer journey map. *Business Horizons*, 60(1), 143-150.

Rowley, J. (2008). Understanding digital content marketing. *Journal of marketing management*, 24(5-6), 517-540.

Rutter, R., Roper, S., & Lettice, F. (2016). Social media interaction, the university brand and recruitment performance. *Journal of Business Research*, 69(8), 3096-3104.

Rudhumbu, N., Tirumalai, A., & Kumari, B. (2017), "Factors that Influence Undergraduate Students' Choice of a University: A Case of Botho University in Botswana", *International Journal of Learning and Development*, 7(2), 27-37.

Ryan, D. (2016). *Understanding digital marketing: marketing strategies for engaging the digital generation*. Kogan Page Publishers.

Saravanakumar, M., & SuganthaLakshmi, T. (2012). Social media marketing. *Life Science Journal*, 9(4), 4444-4451.

Scherer, K. R. (2001). *Emotion, the psychological structure of*. In: Smelser, N. J. & Baltes, P. B. (Eds.) *International Encyclopedia of the Social and Behavioral Sciences*. Oxford: Pergamon.

Shahid, H., Shafique, O., & Bodla, O. H. (2012). What factors affect a student's choice of a university for higher education. *Research on Humanities and Social Sciences*, 2(10), 64-67.

Shewan, D. (2018). Pain Point: A Guide to Finding and Solving Your Customers' Problems. *WordStream*. Retrieved on April, 16 from <https://www.wordstream.com/blog/ws/2018/02/28/pain-points>

Sigler, W. (2018). 8 fundamentals of successful student recruitment. *AACRAO*. Retrieved from <https://www.aacrao.org/resources/newsletters-blogs/aacrao-connect/article/8-fundamentals-of-successful-student-recruitment> on March 4, 2019

Sims, R. (2014). New research on student emotions in college choice: Part 1. Ruffalo Noel Levitz. Retrieved from <http://blogem.ruffalonl.com/new-research-student-emotions-college-choice-part-1/> on March 13, 2019

Sims, R. (2014). New research on student emotions in college choice: Part 2. Ruffalo Noel Levitz. Retrieved from <http://blogem.ruffalonl.com/new-research-student-emotions-college-choice-part-ii/> on March 13, 2019

Singhal, A. (2019). 10 successful higher education social media marketing strategies. *Falcon.IO*. Retrieved from <https://www.falcon.io/insights-hub/topics/social-media-management/10-successful-higher-education-social-media-marketing-strategies/> on March 10, 2019

Social Media Engagement – 2017's Surprising Best and Worst Performers (2017). *Marketing Insider Group*. Retrieved from

<https://marketinginsidergroup.com/social-media/social-media-engagement-2017s-surprising-best-worst-performers/> on March 10, 2019

2018 Social Media Industry Benchmark Report. (2018) *Rival IQ*. Retrieved from https://www.rivaliq.com/blog/2018-social-media-industry-benchmark-report/#higher_ed_title on March 10, 2019

Social Networking Platforms' User Demographics Update, (2018). *Marketing Charts*. Retrieved from <https://www.marketingcharts.com/digital/social-media-82642> on March 10, 2019

Statista, (2019). Distribution of Instagram users worldwide as of January 2019, by age and gender. Retrieved on April 10, 2019 at <https://www.statista.com/statistics/248769/age-distribution-of-worldwide-instagram-users/>

The 2018 Social Audience Guide. (2018). *Spredfast*. Retrieved from <https://www.spredfast.com/social-media-tips/social-media-demographics-current> March 10, 2019

Temkin, B. D. (2010). Mapping the customer journey. *Forrester Research*, 3.

Trends in Higher Education Marketing, Recruitment and Technology. (2014). *Hannover Research*. Retrieved from <https://www.hanoverresearch.com/media/Trends-in-Higher-Education-Marketing-Recruitment-and-Technology-2.pdf> on March 4, 2019

Turri, A. M., Smith, K. H., & Kemp, E. (2013). Developing affective brand commitment through social media. *Journal of Electronic Commerce Research*, 14(3).

Watson, L., & Spence, M. T. (2007). Causes and consequences of emotions on consumer behaviour: A review and integrative cognitive appraisal theory. *European Journal of Marketing*, 41(5/6), 487-511.

Wilkins, S., Balakrishnan, M. S., & Huisman, J. (2012). Student choice in higher education: Motivations for choosing to study at an international branch campus. *Journal of Studies in International Education*, 16(5), 413-433.

Appendices

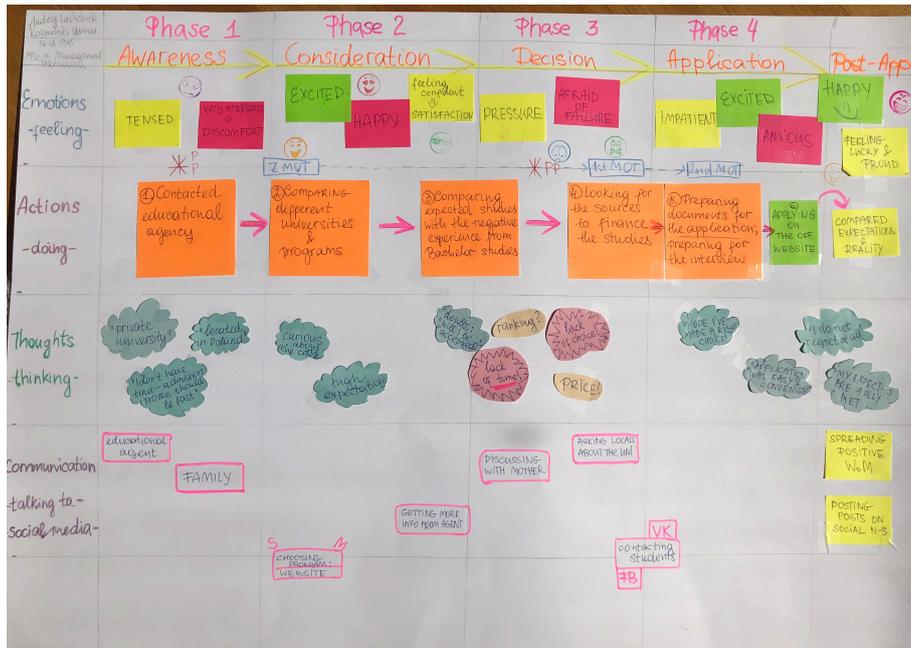
Appendix 1

The Appendix 1 illustrates the customer journey maps for the 5 mentioned Respondents.

1. Customer Journey Map of the Respondent 1



2. Customer Journey Map of the Respondent 2



3. Customer Journey Map of the Respondent 3



4. Customer Journey Map of the Respondent 4

Appendix 2

Appendix 2 presents the full questionnaire used for conducting the quasi-experiment.

Social Media for University Recruitment

Welcome to My Experiment!

Dear Participant,

Thank you for your participation in this survey-experiment!

This experiment is conducted in order to achieve the Master's degree in Management (M.Sc. Management, Modul University Vienna). The experiment will take about 5 minutes to complete. All information provided by you will be treated as confidential and will only be used for scientific purposes.

Can I participate in this study?

You can participate in this study **if**:

- You are currently pursuing Bachelor's or Master's degree OR
- You have graduated with the Bachelor's degree and looking for the Master's program
- You are aged: **20-35** y.o.

Social Media for University Recruitment

Welcome to My Survey

PLEASE IMAGINE that you are currently looking for a university to obtain a Master's degree.

You are already **aware of 3 universities-options** and now comparing them.

One of the options is the **Silver Lake University** - a nationally accredited and internationally known private university located in Central Europe (your desired location).

- It offers your desired program - MSc in Management, taught in English.
- The tuition fee matches your budget.
- The duration of the program is 2 years, and the student/faculty ratio is 1/40 with the total amount of students 7000.

Imagine yourself thinking of Silver Lake University as one of the university options and making your decision.

NEXT

* 1. In this situation, which of the following emotions do you feel?



* 3. Please choose one of the images to be assigned to the experiment group



The following part was displayed for the Group 1 (Treatment 1):

You were scrolling your Instagram feed and saw the following post by Silver Lake University.



NEXT

* 4. After seeing this post, imagine yourself thinking of Silver Lake University as of one of the university options and making your decision. Which of the following emotions would you feel?

ANTICIPATION	JOY	TRUST
FEAR	SURPRISE	SADNESS
DISGUST	ANGER	

* 5. After seeing the post, how likely is that you will apply to this university?

Very unlikely

Likely

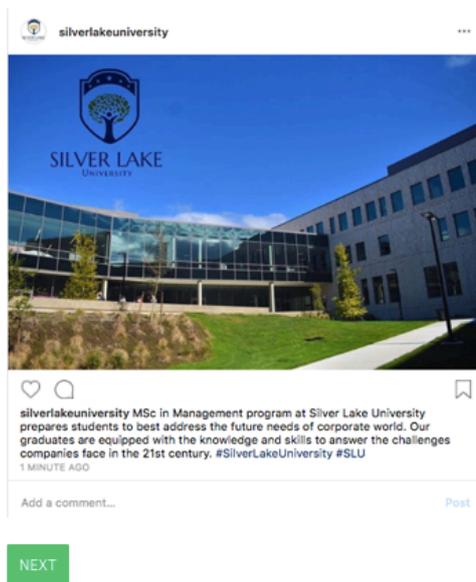
Unlikely

Very likely

Neither likely nor unlikely

The following part was displayed for the Group 2 (Treatment 2):

You were scrolling your Instagram feed and saw the following post by Silver Lake University.



* 4. After seeing this post, imagine yourself thinking of Silver Lake University as of one of the university options and making your decision. Which of the following emotions would you feel?



* 5. After seeing the post, how likely is that you will apply to this university?

Very unlikely

Likely

Unlikely

Very likely

Neither likely nor unlikely

The following part includes question for collection of demographic data and was displayed for both treatment groups:

* 6. What is your gender?

Female

Male

* 7. What is your age?

younger than 20

31 to 35

21 to 25

36 or older

26 to 30

* 8. Please indicate your nationality

* 9. What is the highest level of education you have completed?

Appendix 3

The Appendix 3 illustrates SPSS outputs of the Wilcoxon tests performed to compare all 8 tested emotions measured during pre-test and post-test.

1. Comparison of 8 tested emotions: pre-test and post-test (Treatment 1 application).

	Q4Anticipation - Q1Anticipation	Q4Joy - Q1Joy	Q4Trust - Q1Trust	Q4Fear - Q1Fear	Q4Surprise - Q1Surprise	Q4Sadness - Q1Sadness	Q4Disgust - Q1Disgust	Q4Anger - Q1Anger
Z	-2,466 ^b	-2,160 ^b	-3,592 ^c	-2,324 ^b	-,577 ^c	,000 ^d	-1,000 ^b	-1,000 ^b
Asymp. Sig. (2-tailed)	,014	,031	,000	,020	,564	1,000	,317	,317

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

d. The sum of negative ranks equals the sum of positive ranks.

		N	Mean Rank	Sum of Ranks
Q4Anticipation - Q1Anticipation	Negative Ranks	26 ^a	19,00	494,00
	Positive Ranks	11 ^b	19,00	209,00
	Ties	41 ^c		
	Total	78		
Q4Joy - Q1Joy	Negative Ranks	28 ^d	21,50	602,00
	Positive Ranks	14 ^e	21,50	301,00
	Ties	36 ^f		
	Total	78		
Q4Trust - Q1Trust	Negative Ranks	9 ^g	21,00	189,00
	Positive Ranks	32 ^h	21,00	672,00
	Ties	37 ⁱ		
	Total	78		
Q4Fear - Q1Fear	Negative Ranks	12 ^j	8,00	96,00
	Positive Ranks	3 ^k	8,00	24,00
	Ties	63 ^l		
	Total	78		
Q4Surprise - Q1Surprise	Negative Ranks	12 ^m	14,00	168,00
	Positive Ranks	15 ⁿ	14,00	210,00
	Ties	51 ^o		
	Total	78		
Q4Sadness - Q1Sadness	Negative Ranks	3 ^p	3,50	10,50
	Positive Ranks	3 ^q	3,50	10,50
	Ties	72 ^r		
	Total	78		

Q4Disgust - Q1Disgust	Negative Ranks	1 ^s	1,00	1,00
	Positive Ranks	0 ^t	,00	,00
	Ties	77 ^u		
	Total	78		
Q4Anger - Q1Anger	Negative Ranks	1 ^v	1,00	1,00
	Positive Ranks	0 ^w	,00	,00
	Ties	77 ^x		
	Total	78		

2. Comparison of 8 tested emotions: pre-test and post-test (Treatment 2 application).

Test Statistics ^a								
	Q6Anticipation - Q1Anticipation	Q6Joy - Q1Joy	Q6Trust - Q1Trust	Q6Fear - Q1Fear	Q6Surprise - Q1Surprise	Q6Sadness - Q1Sadness	Q6Disgust - Q1Disgust	Q6Anger - Q1Anger
Z	-1,976 ^b	-1,897 ^b	-3,683 ^c	-1,213 ^b	-,392 ^c	-,447 ^b	-,577 ^c	,000 ^d
Asymp. Sig. (2-tailed)	,048	,058	,000	,225	,695	,655	,564	1,000

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.

d. The sum of negative ranks equals the sum of positive ranks.

Ranks				
		N	Mean Rank	Sum of Ranks
Q6Anticipation - Q1Anticipation	Negative Ranks	21 ^a	16,00	336,00
	Positive Ranks	10 ^b	16,00	160,00
	Ties	38 ^c		
	Total	69		
Q6Joy - Q1Joy	Negative Ranks	26 ^d	20,50	533,00
	Positive Ranks	14 ^e	20,50	287,00
	Ties	30 ^f		
	Total	70		
Q6Trust - Q1Trust	Negative Ranks	8 ^g	20,00	160,00
	Positive Ranks	31 ^h	20,00	620,00
	Ties	31 ⁱ		
	Total	70		
Q6Fear - Q1Fear	Negative Ranks	11 ^j	9,00	99,00
	Positive Ranks	6 ^k	9,00	54,00
	Ties	52 ^l		
	Total	69		
Q6Surprise - Q1Surprise	Negative Ranks	12 ^m	13,50	162,00
	Positive Ranks	14 ⁿ	13,50	189,00
	Ties	43 ^o		
	Total	69		

Q6Sadness - Q1Sadness	Negative Ranks	3 ^p	3,00	9,00
	Positive Ranks	2 ^q	3,00	6,00
	Ties	64 ^r		
	Total	69		
Q6Disgust - Q1Disgust	Negative Ranks	1 ^s	2,00	2,00
	Positive Ranks	2 ^t	2,00	4,00
	Ties	66 ^u		
	Total	69		
Q6Anger - Q1Anger	Negative Ranks	1 ^v	1,50	1,50
	Positive Ranks	1 ^w	1,50	1,50
	Ties	67 ^x		
	Total	69		

Appendix 4

Appendix 4 illustrates Spearman correlation tests performed for each of the eight (anticipation, joy, trust, fear, surprise, sadness, disgust, anger) tested emotion and likelihood to apply to the university (pre-test).

1. Anticipation (pre-test) and likelihood to apply (pre-test)

Correlations				
			Likelihood of the application to the university	Q1Anticipation
Spearman's rho	Likelihood of the application to the university	Correlation Coefficient	1,000	,172*
		Sig. (2-tailed)	.	,034
		N	153	153
	Q1Anticipation	Correlation Coefficient	,172*	1,000
		Sig. (2-tailed)	,034	.
		N	153	153
*. Correlation is significant at the 0.05 level (2-tailed).				

2. Joy (pre-test) and likelihood to apply (pre-test)

Correlations				
			Likelihood of the application to the university	Q1Joy
Spearman's rho	Likelihood of the application to the university	Correlation Coefficient	1,000	,278**
		Sig. (2-tailed)	.	,001
		N	153	153
	Q1Joy	Correlation Coefficient	,278**	1,000
		Sig. (2-tailed)	,001	.
		N	153	153
**. Correlation is significant at the 0.01 level (2-tailed).				

3. Trust (pre-test) and likelihood to apply (pre-test)

Correlations				
			Likelihood of the application to the university	Q1Trust
Spearman's rho	Likelihood of the application to the university	Correlation Coefficient	1,000	,163*
		Sig. (2-tailed)	.	,045
		N	153	153
	Q1Trust	Correlation Coefficient	,163*	1,000
		Sig. (2-tailed)	,045	.
		N	153	153
*. Correlation is significant at the 0.05 level (2-tailed).				

4. Fear (pre-test) and likelihood to apply (pre-test)

Correlations				
			Likelihood of the application to the university	Q1Fear
Spearman's rho	Likelihood of the application to the university	Correlation Coefficient	1,000	-,076
		Sig. (2-tailed)	.	,349
		N	153	153
	Q1Fear	Correlation Coefficient	-,076	1,000
		Sig. (2-tailed)	,349	.
		N	153	153

5. Surprise (pre-test) and likelihood to apply (pre-test)

Correlations				
			Likelihood of the application to the university	Q1Surprise
Spearman's rho	Likelihood of the application to the university	Correlation Coefficient	1,000	-,121
		Sig. (2-tailed)	.	,137
		N	153	153
	Q1Surprise	Correlation Coefficient	-,121	1,000
		Sig. (2-tailed)	,137	.
		N	153	153

6. Sadness (pre-test) and likelihood to apply (pre-test)

Correlations				
			Likelihood of the application to the university	Q1Sadness
Spearman's rho	Likelihood of the application to the university	Correlation Coefficient	1,000	-,093
		Sig. (2-tailed)	.	,255
		N	153	153
	Q1Sadness	Correlation Coefficient	-,093	1,000
		Sig. (2-tailed)	,255	.
		N	153	153

7. Disgust (pre-test) and likelihood to apply (pre-test)

Correlations				
			Likelihood of the application to the university	Q1Disgust
Spearman's rho	Likelihood of the application to the university	Correlation Coefficient	1,000	-,010
		Sig. (2-tailed)	.	,905
		N	153	153
	Q1Disgust	Correlation Coefficient	-,010	1,000
		Sig. (2-tailed)	,905	.
		N	153	153

8. Anger (pre-test) and likelihood to apply (pre-test)

Correlations				
			Likelihood of the application to the university	Q1Anger
Spearman's rho	Likelihood of the application to the university	Correlation Coefficient	1,000	-,002
		Sig. (2-tailed)	.	,978
		N	153	153
	Q1Anger	Correlation Coefficient	-,002	1,000
		Sig. (2-tailed)	,978	.
		N	153	153